

# **DRAFT ENVIRONMENTAL ASSESSMENT FOR THE COMMUNITY BASED OUTPATIENT CLINIC, EUGENE/SPRINGFIELD, OREGON**

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## **EXECUTIVE SUMMARY**

The U.S. Department of Veterans Affairs (VA) has received authorization for relocating and expanding the existing Eugene Community Based Outpatient Clinic (CBOC) under a new 20-year lease. VA policy is to act with care in carrying out its mission of providing services for Veterans and to ensure it does so consistent with national environmental policies. This environmental assessment (EA) is intended to fulfill the requirements of the President's Council on Environmental Quality (CEQ) Regulations Implementing the Procedural Provisions of NEPA as set forth in the Code of Federal Regulations 40 CFR Parts 1500–1517, and 38 CFR Part 26 (Environmental Effects of the Department of Veterans Affairs Actions). . This EA also conforms with VA Office of Construction and Facilities Management, NEPA Interim Guidance for Projects (September 2010).

### **Purpose and Need**

The purpose of the Proposed Action is to provide for the needs of Oregon Veterans and their families by enhancing Veteran access to state-of-the-art primary care clinics, specialty care clinics, mental health, and ancillary diagnostic services in Lane County, Oregon.

The need is driven by VA estimates that Veteran enrollment in health care services will increase by 23% in 2028, and that clinic workload will increase by 156% in the same time frame for the Eugene area (VA 2009). The current Eugene CBOC fails to meet Institute for Health Improvement requirements for exam rooms and has inadequate parking. Implementation of a new lease with expanded service and parking capacity would resolve these issues, as well as provide additional specialty services, mental health, and primary care services that are projected to increase with the rise in patient visits over the next two decades.

### **Proposed Action**

Under the Proposed Action, a leased location would undergo construction to build an approximately 130,000 gross-square-foot outpatient clinic, including a 25-foot-perimeter security setback, parking for a minimum of 685 vehicles, space for potential parking and building expansion as well as separate small facilities for an emergency generator and medical gas storage, an MRI dock and separate service dock, staff and patient shelters, and a reflecting pool. These components are estimated to use approximately 13.2 acres of land within the leased parcel, although the site plan can be changed to accommodate smaller or larger lot sizes.

Access to the new facility would occur via two access points from a connecting public road. One access road would provide staff and service access to the rear of the building, whereas the public would enter via a boulevard entry leading to a canopied patient drop-off area located at the front of the building. The building would be oriented toward the public street, with directory signage placed at both entries to assist in way-finding. Vehicular entry gates would be constructed of a sliding or cantilevered type and be capable of providing a facility lockdown or leaving one vehicle lane open. If VA elects to install security fencing, fencing would encompass the perimeter of the property per VA security regulations.

On-site landscaping would follow the prescribed standards of the municipal ordinance, which set standards for parking lot and perimeter planting and screening. Only those local species that are in the municipal planting ordinance would be used; per state regulation, invasive species would not be used. Additional plantings would be used in public welcome areas (e.g., the boulevard entry, flag circle, and main building entry) to provide a dignified entrance to the clinic befitting of the nation's pride in its

Veteran population. Underground retention in the parking lots using rock voids or chambers, as well as planting beds and other parking green space, would be used to manage stormwater flow.

The following best management practices (BMPs) would be implemented to minimize adverse impacts to sensitive resources:

- Dust control and equipment machinery operating procedures BMPs would reduce impacts to air quality.
- Noise-timing constraints would be implemented to reduce impacts to residents.
- A stormwater pollution prevention plan (SWPPP) would be developed and implemented. The plan would contain erosion control, revegetation, and drainage plans to minimize impacts to vegetation, soils, and water quality.
- Solid and hazardous waste storage and disposal procedures would be implemented.

The following properties are under consideration as potential locations for the Proposed Action. Note that Locations 4A, 4B, and 4D are nearly adjacent to each other.

## **Location 4A**

Location 4A is an approximately 15.5-acre parcel located between Chad Dr and BeltLine Highway. The facility would be situated on the western edge of the parcel and oriented north-facing to permit public and staff access from Chad Drive. The southernmost edge of the parcel would abut a variable-width permanent easement for slopes, drainage, and wildlife/vegetation habitat conservation, as well as a variable-width floodway channel maintenance easement. Location 4A is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential.

## **Location 4B**

Location 4B is an approximately 12.7-acre parcel located off of Chad Drive. The facility would be oriented south-facing to permit public and staff access from Chad Drive. Location 4B is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential.

## **Location 4C**

Location 4C is an approximately 13.7-acre parcel located at the Villages at Marcola Meadows, The property sits on the northwest corner of Marcola Road and 28th Street. Marcola Meadows is an approved master-planned mixed-use development complex for health care facilities, professional offices, retail, and shopping. Access to the facility would be via State Route 126/Marcola Road. Location 4C is relatively level and comprises open fields. Surrounding land use is commercial and residential.

## **Location 4D**

Location 4D is an approximately 14.6-acre parcel located along Chad Drive and Game Farm Road NW. . The facility would be oriented south-facing to permit public and staff access from Chad Drive. Location 4D is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential.

## **Location 4E**

Location 4E consists of three parcels, totaling 9.8 acres, located between Gam Farm Road and Martin Luther King Jr Parkway. The facility would be oriented west-facing to permit public and staff access from Game Farm Road. Location 4E is undeveloped with relatively flat topography and moderate tree cover; minimal grading would be required. Surrounding land use is residential and medical.

## **No Action**

Under the No Action Alternative, the new CBOC would not be developed and lease locations would remain in their present undeveloped condition. The No Action Alternative would not accommodate future Veteran needs in the area, however, and lease locations could be developed for other commercial, industrial, or residential uses, resulting in an overall beneficial or negative impact to the region, depending on the type of development.

## **Summary of Impacts**

The following table provides a summary of impacts from the Proposed Action and No Action Alternative.

**Table ES-1.** Summary of Impacts

|                             | Proposed Action:<br>Location 4A  | Proposed Action:<br>Location 4B   | Proposed Action:<br>Location 4C | Proposed Action:<br>Location 4D   | Proposed Action:<br>Location 4E  | No Action Alternative   |
|-----------------------------|--|---|---------------------------------|---|--|---|
| Aesthetics                  | Beneficial improvements to undeveloped property. Acreage would be developed and attractively landscaped.   | Same as Location 4A.  | Same as Location 4A.            | Same as Location 4A. Construction of the proposed facility would occur within the viewshed of NRHP-eligible properties. | Same as Location 4A. Construction of the proposed facility would occur within the viewshed of NRHP-eligible properties.  | No impacts beyond existing trends and conditions.               |
| Air Quality                 | Minor, short-term impacts from construction equipment and dust during construction would be minimized through BMPs. Negligible impacts from operations.  | Same as Location 4A.  | Same as Location 4A.            | Same as Location 4A.  | Same as Location 4A.   | No impacts beyond existing trends and conditions.               |
| Cultural Resources          | No impacts to NRHP-eligible or potentially eligible properties.  | Same as Location 4A.  | Same as Location 4A.            | Potential visual impacts to NRHP-eligible properties.   | Potential visual impacts to NRHP-eligible properties.  | No impacts to NRHP-eligible or potentially eligible properties. |
| Geology and Soils           | No impacts to geologic resources. Potential for erosion from a maximum of 13.2 acres of surface disturbance would be minimized through use of BMPs.  | No impacts to geologic resources. Potential for erosion from a maximum of 12.7 acres of surface disturbance would be minimized through use of BMPs.             | Same as Location 4A.            | Same as Location 4A.  | No impacts to geologic resources. Potential for erosion from a maximum of 9.7 acres of surface disturbance would be minimized through use of BMPs.             | No impacts beyond existing trends and conditions.               |
| Hydrology and Water Quality | Potential for surface water impacts and sedimentation from a maximum of 13.2 acres of surface disturbance would be minimized through development of a SWPPP. No groundwater impacts due to spill prevention and stormwater treatment measures. | Potential for surface water impacts and sedimentation from a maximum of 12.7 acres of surface disturbance would be minimized through development of a SWPPP. No | Same as Location 4A.            | Same as Location 4A.  | Potential for surface water impacts and sedimentation from a maximum of 9.7 acres of surface disturbance would be minimized through development of a SWPPP. No | No impacts beyond existing trends and conditions.               |

**Table ES-1.** Summary of Impacts

|                             | Proposed Action:<br>Location 4A  | Proposed Action:<br>Location 4B  | Proposed Action:<br>Location 4C | Proposed Action:<br>Location 4D | Proposed Action:<br>Location 4E   | No Action Alternative  |
|-----------------------------|--|--|---------------------------------|---------------------------------|---|--|
|                             |  | groundwater impacts due to spill prevention and stormwater treatment measures.   |                                 |                                 | groundwater impacts due to spill prevention and stormwater treatment measures.  |  |
| <b>Wildlife and Habitat</b> | Loss of vegetation and potential wildlife habitat from a maximum of 13.2 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | Loss of vegetation and potential wildlife habitat from a maximum of 12.7 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | Same as Location 4A.            | Same as Location 4A.            | Loss of vegetation and potential wildlife habitat from a maximum of 9.7 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | No impacts to wildlife and habitat beyond existing trends and conditions.                            |
| <b>Noise</b>                | Potential increase noise sources during construction, but noise would be similar to current levels; operational noise would be similar to current levels. Noise impacts would be further reduced through compliance with existing noise ordinances   | Same as Location 4A.   | Same as Location 4A.            | Same as Location 4A.            | Same as Location 4A.  | No additional noise impacts beyond the existing trends from traffic and current cemetery activities. |

**Table ES-1.** Summary of Impacts

|   | Proposed Action:<br>Location 4A   | Proposed Action:<br>Location 4B  | Proposed Action:<br>Location 4C   | Proposed Action:<br>Location 4D  | Proposed Action:<br>Location 4E  | No Action Alternative  |
|---|---|--|---|--|--|--|
| and codes.  |   |  |   |  |  |  |
| <b>Land Use</b>   | Compatible with existing land uses and zoning.  | Same as Location 4A.   | Same as Location 4A.  | Same as Location 4A.   | Same as Location 4A.   | No impacts to existing land use.   |
|   | No direct impacts to wetlands. Indirect impacts to 0.65 acre of wetlands would be avoided through BMPs.   | Direct impacts to 0.18 acre to wetlands. Indirect impacts would be avoided through BMPs. | Direct impacts to 1.58 acres of jurisdictional wetlands and 0.43 acre and 1,100 linear feet of jurisdictional waters. Indirect impacts would be avoided through BMPs. | Direct impacts to 0.16 acre to wetlands. Indirect impacts would be avoided through BMPs. | No impacts to wetlands or jurisdictional waters.   | No impacts to floodplains or wetlands.   |
| <b>Floodplains, Wetlands, and Coastal Zone Management</b> | No floodplains or CMZAs affected.   | No floodplains or CMZAs affected.  | No floodplains or CMZAs affected.   | No floodplains or CMZAs affected.  | No CMZAs affected.<br><br>Development would occur within a Zone X flood zone.                          |  |
|   | During construction, temporary jobs would be created. Negligible change to employment patterns during operations.   | Same as Location 4A.   | Same as Location 4A.  | Same as Location 4A.   | Same as Location 4A.   | No change to economic trends.  |
| <b>Socioeconomics</b>                                     | No change to existing services.   | Same as Location 4A.   | Same as Location 4A.  | Same as Location 4A.   | Same as Location 4A.   | No change to existing services.  |
|   | Some amounts of hazardous materials would be stored on site. Site contains no known RECs or HRECs, EPA NPL sites, or violations of nearby hazardous waste generators. | Same as Location 4A.   | Same as Location 4A.  | Same as Location 4A.   | Same as Location 4A.   | No changes from existing conditions.   |
| <b>Solid and Hazardous Materials</b>                      | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 2.6% on the Beltline and 2.1% on I-5.                                      | Same as Location 4A.   | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 3.2% on SR 126.  | Same as Location 4A.   | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 5.1% on the | No changes from existing conditions. Parking would continue to be insufficient to meet demand. |
| <b>Transportation and Parking</b>                         |   |  |   |  |  |  |

**Table ES-1.** Summary of Impacts

|   | Proposed Action:<br>Location 4A   | Proposed Action:<br>Location 4B | Proposed Action:<br>Location 4C | Proposed Action:<br>Location 4D | Proposed Action:<br>Location 4E            | No Action Alternative   |
|---|---|---------------------------------|---------------------------------|---------------------------------|--|---|
|   |   |                                 |                                 |                                 | Beltline, 2.1% on I-5, and 2.3% on SR 126. |   |
| <b>Utilities</b>  | Slight increase in electrical and water needs to service new facility building and additional acreage requiring irrigation. | Same as Location 4A.                       | No change beyond existing utility demands.  |
| <b>Environmental Justice</b>                            | No disproportionate impacts to minority or low income communities.  | Same as Location 4A.                       | No disproportionate impacts to minority or low income communities.  |
| <b>Cumulative Impacts</b>                               | Would contribute to reasonably foreseeable projects within the watershed.   | Same as Location 4A.                       | No contribution to cumulative impacts.  |
| <b>Potential for Generating Substantial Controversy</b> | No known controversy.   | Same as Location 4A.                       | Potential controversy from Veterans if current CBOC service fails to meet anticipated enrollment and workload growth. |

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# **CHAPTER 1 INTRODUCTION AND NEED FOR THE PROPOSED ACTION**

## **1.1 Project Background**

The U.S. Department of Veterans Affairs (VA) manages the United States' largest integrated health care system, consisting of 152 medical centers and nearly 1,400 community based outpatient clinics (CBOCs) and other centers that serve more than 8.3 million Veterans each year (VA 2012). To make access to health care easier, VA uses CBOCs to provide the most common outpatient services, including health and wellness visits, without the hassle of visiting a larger medical center. VA continues to expand the network of CBOCs to include more locations, putting access to care closer to Veterans across the United States.

As part of the Fiscal Year 2009 budget, VA received authorization to relocate and expand the existing Eugene CBOC under a new 20-year lease. VA policy includes provisions to protect, restore, and enhance the quality of the human environment and to minimize adverse environmental consequences, consistent with other national policy considerations. Thus, this environmental assessment (EA), part of the site selection process for relocating and expanding the Eugene CBOC, is intended to fulfill the requirements of the National Environmental Policy Act (NEPA), as set forth in the Code of Federal Regulations (40 C.F.R. §§ 1500–1517). This EA conforms with VA Office of Construction and Facilities Management, Environmental Compliance Manual, updated July 1998 (38 C.F.R. § 26), and the NEPA Interim Guidance for Projects Manual, issued in September 2010.

## **1.2 Existing CBOC description**

The existing Eugene CBOC is located at 100 River Avenue in Eugene, Oregon. The approximately 2-acre parcel comprises medical care facilities and parking. The CBOC location is landlocked by existing roads and commercial and residential properties, with no potential to expand. An additional, separate 6,506-square-foot building, the Community Reintegration Service Center, is also being leased off-site to provide space for VA programs focusing on homelessness, substance abuse, and vocational rehabilitation. The current lease for the CBOC expires in 2012.

## **1.3 Proposed CBOC Facility**

VA is proposing to relocate and expand the Eugene CBOC to provide supplementary health services, as well as provide additional parking space and minimize safety concerns. A preliminary site plan (Cannon and LA Group 2011) has been prepared for the project. The plan achieves all design aspects identified by VA while avoiding and minimizing potential impacts to sensitive environmental resources and providing an appealing, high-quality CBOC for U.S. Veterans.

## **1.4 Purpose and Need**

The purpose of the Proposed Action is to provide the medical services for Oregon Veterans and their families by enhancing Veteran access to state-of-the-art primary care clinics, specialty care clinics, mental health, and ancillary diagnostic services in Lane County, Oregon. The new leased building would benefit the Veteran population in many ways:

- Collocating all services, such as primary care, mental health, and specialty care in one central building

- Adding clinical exam rooms to reduce waiting times, help manage the increase in patient workload, and ensure compliance with Institute for Health Improvement requirements
- Adding space for both individual and group therapy visits to allow for significant expansion of mental health programs, including but not limited to mental health intensive case management military sexual trauma counseling services; addiction treatment services; recovery implementation programs; and improved integration of primary care and mental health services
- Providing adequate parking
- Avoiding multiple lease payments, including multiple stand-alone building service contracts for alarms, janitorial, and security services
- Reducing contract administration overhead costs for existing multiple buildings and service contracts

The need for the proposed action is primarily driven by increasing demand for these services. The South Cascade Market, of which Eugene/Springfield is a part of, is identified by VA as a significant health care accessibility gap. VA estimates that Veteran enrollment in health care services will increase by 23% in 2028, and that clinic workload will increase by 156% in the same time frame for the Eugene area (VA 2009). As discussed previously, the current CBOC fails to provide sufficient exam room space and parking for the current workload. Implementation of a new lease with expanded service and parking capacity would resolve these issues, as well as provide additional specialty services, mental health, and primary care service needs that are projected to increase with the rise in patient visits over the next two decades.

Analysis completed by a Veterans Healthcare Network (VISN) 20 workgroup within VA also identified a need for more ambulatory surgical services in Eugene, Oregon. The current medical center is located in Roseburg, which is in rural Douglas County. Because most Veterans currently served, or forecasted to be served, by the CBOC live in Lane County, adding an ambulatory surgery program to the new Eugene CBOC would bring care closer to Veterans. The move would also improve VA's ability to hire professional staff to work in the larger city of Eugene, as compared to Roseburg.

## **CHAPTER 2 DESCRIPTION OF ALTERNATIVES**

### **2.1 Alternative Development and Location Requirements**

During the alternatives development process, VA analyzed four alternatives for their ability to meet project purpose and need, be technically and economically feasible, and minimize environmental impacts.

- **Alternative 1, No Action Alternative:** Under this alternative, a new CBOC would not be constructed nor operated. This does not meet the purpose and need of the proposed action as it would not provide adequate space and services to effectively provide care for Veterans. VA's leasing authority does not extend beyond the current lease expiration. This Alternative is carried forward for analysis as the No Action Alternative required by NEPA.
- **Alternative 2, VA Construction of a new Outpatient Clinic:** The "build" alternative would require purchasing land, increasing the facilities capital asset holdings and recurring maintenance demands. Flexibility to expand or contract services and/or change location depending on workload demand would also be difficult. Due to this alternative's reduced ability to meet purpose and need and economic costs, this alternative was not carried forward for analysis.
- **Alternative 3, Contracting Care:** VA determined that the contracting alternative would not be cost effective based on economic analysis of costs of community care for Veterans. Due to the alternative's economic infeasibility, this alternative was not carried forward for analysis.
- **Alternative 4, Leasing an Outpatient Clinic:** The lease alternative would permit construction of an expanded CBOC to meet Veterans' health care needs without requiring major upfront capital investment. The alternative was carried forward for analysis due to its ability to meet purpose and need and lower economic risk.

Upon selection of the lease alternative as VA's Proposed Action, VA identified numerous site selection criteria that leased locations must meet to be considered an acceptable location for the CBOC. These criteria consisted of the following:

- The leased location must be able to accommodate the proposed building and provide the required amount of appropriately located parking with appropriate vehicular circulation, loading dock and service vehicle access, emergency vehicle (ambulance) access and entry, building utility equipment (chillers, emergency generator, fuel tanks, etc.), safe ways of passage for pedestrians, barrier-free access to public entrances, and adequate open space with landscaping to complement the architecture and create a pleasing outdoor environment.
- Topography shall be without steep grades and shall not be affected by the 100-year floodplain as mapped by FEMA, rock outcroppings, or adverse subsurface conditions.
- The leased location must be free of environmental hazards or restrictions.
- The leased location must provide proof of ownership and chain of title through a current title report.
- The leased location must provide prominent visibility of the facility from major public thoroughfares.
- Main ingress-egress for on-site pedestrian and vehicular circulation shall be easily accessible from major public thoroughfares.
- Regularly scheduled public transportation shall be available within a reasonable distance to the CBOC location.
- Special consideration will be given to locations within 2.5 miles of existing emergency and inpatient facilities.
- Special consideration will be given for locations/buildings that are located in close proximity to public transportation, existing hospitals, amenities and services, can provide excess parking, have

or can develop parking structures/lots that can accommodate larger vehicles, and buildings that have high visibility.

## **2.2 Proposed Action: Lease Alternatives**

Under the Proposed Action, VA would acquire a lease of up to 20 years for construction and operation of the Eugene CBOC and associated parking and ancillary structures.

- VA advertised (via Solicitation Number VA-101-10-RP-0136) their need for a medical building space. The advertisement indicated that the site should also be located within certain VA-specified geographic boundaries, approximately 10 miles from the center of the City of Eugene.
- The solicitation also required the site have available of all necessary utilities, proper zoning for a medical facility, be relatively free of environmental issues, be outside of the 100-year floodplain, and not contain wetlands. In accordance with VA's requirements, the proposed location should be able to accommodate an approximately 130,000 gross-square-foot building and provide for approximately 686 parking spaces.
- VA received an adequate response for competition. Through a comprehensive and detailed screening process, VA further narrowed the number of viable sites based on more refined analyses of site-specific aspects, issues, and concerns, including: surrounding land uses; location of nearest emergency response services; aesthetic quality; current zoning; accessibility to highways, public transportation, shopping, restaurants, and other features; utility availability; overall site condition; site shape and size; topography; floodplains; and visible environmental issues/features (see screening criteria, above).

### ***2.2.1 Through this additional analysis, VA identified five potential suitable sites that met all of the screening criteria. Locations 4A, 4C, and 4D are in close proximity to each other, Locations 4B and 4E are further east. These locations are as follows.***

#### ***Location 4A***

Under Location 4A, the Eugene CBOC would be relocated to an approximately 15.5-acre parcel located in Section 16, Township 17 South, Range 3 West, in Lane County, Oregon (Figure 2-1). The facility would be situated on the western edge of the parcel and oriented northward to permit public and staff access from Chad Drive. The southernmost edge of the parcel would abut a variable-width permanent easement for slopes, drainage, and wildlife/vegetation habitat conservation, as well as a variable-width floodway channel maintenance easement. Currently, Location 4A is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential. This location was selected as a viable location due to the size, shape, accessibility, utilities, surrounding property use, soils, topography, aesthetics, and lack of restrictions to development and potential future expansion of the facility (VA 2011).

#### **2.2.1.1 CBOC AND ANCILLARY FACILITIES**

The Proposed Action would consist of an approximately 130,000 gross-square-foot building footprint, a 25-foot-perimeter security setback, two smoking shelters (one each for staff and clients), an MRI tech dock, and a service dock area, as well as potential parking and building expansion. These components are estimated to use approximately 13.2 acres of land within the leased parcel.

### **2.2.1.2 ACCESS ROADS AND PARKING AREAS**

Two access roads would be constructed for staff/service vehicles and patients. One road would provide staff and service access to the rear of the building, whereas the public would enter via a boulevard entry that would lead to a canopied patient drop-off area at the front of the building. The main access road would be constructed to provide two 12-foot travel lanes and a 15- foot-wide planted median. Right-hand turn lanes would also be constructed at both the boulevard and service entries to accommodate exiting vehicles. The building entry drop-off area would provide a 12-foot travel aisle and a 12-foot drop-off aisle.

The building would be oriented toward the public street, with directional signage placed at both entries to assist in way-finding. Signage at both entry points would be directional-type horizontal signage complying with VA signage manual. The signage would consist of an illuminated horizontal monument sign 4 feet high by 10 feet wide. VA would furnish message layout, content, and colors for the monument sign. All on-site traffic control signage would meet VA signage requirements and the standards of the Oregon Department of Transportation's supplement to the federal Manual of Uniform Traffic Control Devices (ODOT 2005).

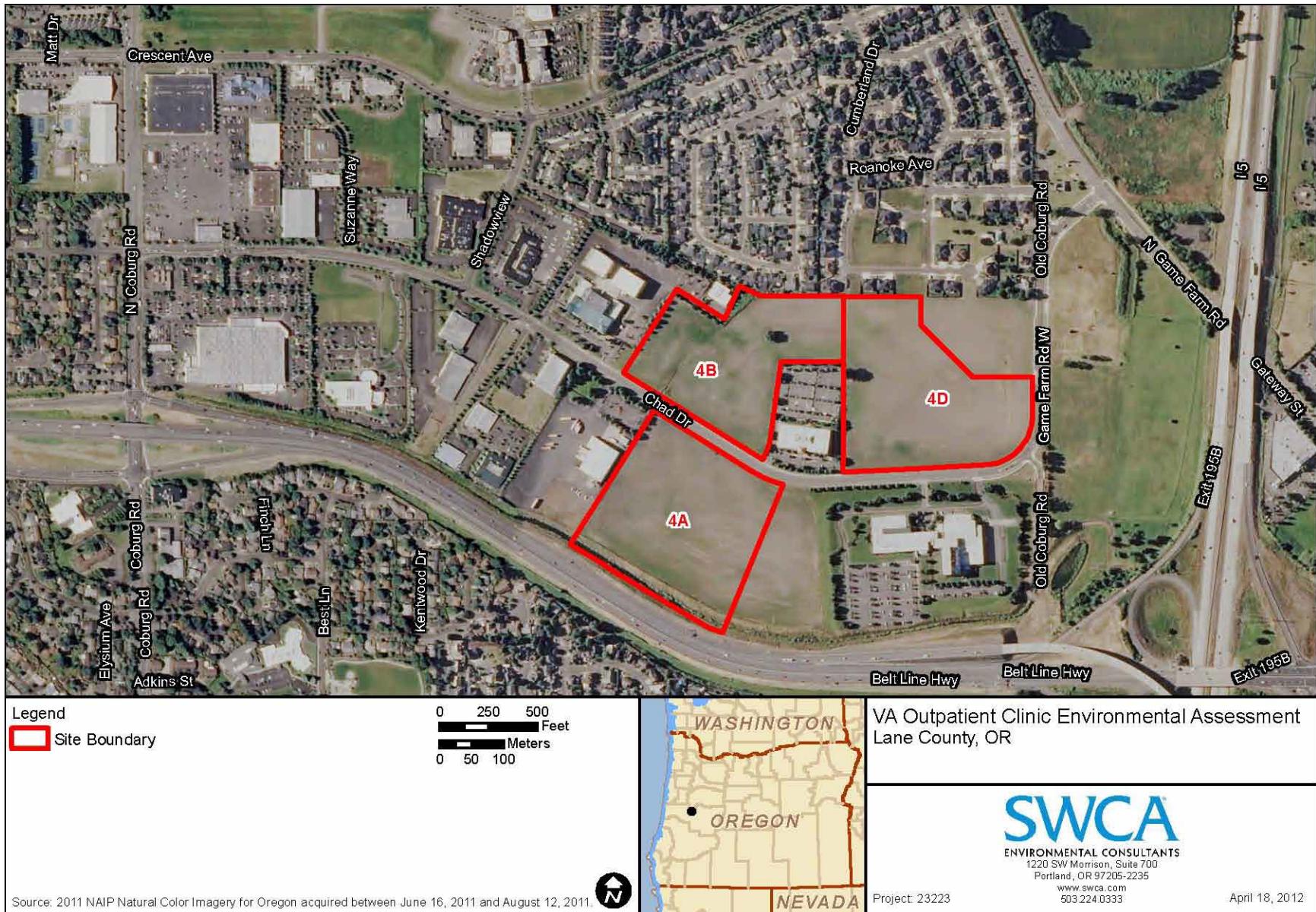


Figure 2-1. Map showing Locations 4A, 4B, and 4D.

Parking would consist of 648 regular bays, 26 accessible spaces (nine of which would be for vans) and 12 motorcycle spaces, for a total of 686 provided. Parking would be zoned using islands to differentiate patron and staff parking areas; the bulk of the staff parking would be placed toward the rear of the building where the employee entrance is located. Pavement thickness design would be completed by a qualified geotechnical engineer upon final site selection. All curbing in roads and parking areas would be integral concrete designed to local municipal standards.

If VA elects to install security fencing, fencing would be installed around perimeter of property using 6-foot black ornamental picket-type fence per VA security regulations. Vehicular entry gates would be of a sliding or cantilevered type and capable of providing a facility lockdown or leaving one vehicle lane open.

#### **2.2.1.3 LANDSCAPING**

On-site landscaping would follow the prescribed standards of the municipal ordinance, which sets standards for parking lot and perimeter planting and screening. Only those local species that are in the municipal planting ordinance would be used; per state regulation invasive species would not be used. Additional plantings would be used in public welcome areas (e.g., the boulevard entry, flag circle, and main building entry). Pedestrian amenities would be provided near the flag circle and main building entry in the form of benches and trash containers. Cigarette urns would also be provided in these areas. Planted sitting areas would be placed alongside the covered overhead canopy leading to the main entrance and the prosthetics and rehabilitation entry and would provide a dignified entrance to the clinic befitting of the nation's pride in its Veteran population. A reflecting pool would be incorporated into the flagpole sitting area. Additional benches would be placed along the major walkways leading from parking areas to the entrance to assist people with mobility impairments. The parking lot would be designed around a large Oregon ash (*Fraxinus latifolia*) identified as particularly valuable for habitat and landscaping quality.

Walkways would be 4-inch-thick reinforced concrete and at least 5 feet wide. Permeable concrete pavers would be used at the building entry and flag circle. Underground retention in the parking lots using rock voids or chambers, as well as planting beds and other parking green space, would be used to manage stormwater flow. The stormwater system would be designed to municipal standards. Erosion and sediment controls would also be provided per state regulation.

#### **2.2.1.4 UTILITIES AND PUBLIC SERVICES**

The CBOC would be connected to local electrical and/or natural gas, water, sewer, and communication systems. Fire protection would be provided by nearby on-site fire hydrants. Local ordinances require that the location be fully irrigated to municipal standards; water supply would be municipal with backflow protection per municipal standard.

#### **2.2.1.5 STAFFING AND VISITORS**

VA estimates that the new Eugene CBOC would support 235 full-time employees and receive approximately 93,000 outpatient visits per year.

#### **2.2.1.6 HAZARDOUS MATERIALS MANAGEMENT**

Under Location 4A, the following hazardous materials would be delivered and used in the project area:

- Diesel fuel for an emergency generator(s) to be used to provide complete standby power to the energy center and that may provide full standby power to other buildings and the entire life-safety system loads. There would be enough fuel on-site for 96 hours of operation.
- Gasoline and diesel fuel, stored in fuel delivery systems of on-site vehicles.
- Maintenance supplies such as paints, solvents, pesticides, and herbicides.

Other hazardous waste would include anything flammable, toxic, reactive, or corrosive, such as batteries, light bulbs, and chemicals associated with hospital and nursing home operations such as benzene and chloroform. Compressed medical gases (oxygen, medical air, nitrous oxide) would also be delivered in canisters and stored on-site. Some of the medical equipment would use radioactive materials.

Any on-site storage of gasoline, diesel fuels, or other potential pollutants would use containers with an approved design that would prevent accidental release. Fuel tank(s) would have leak detection systems. Human waste would be disposed of through a sanitary waste system.

Solid and hazardous wastes generated would controlled by separated waste streams. Waste streams would be established based on the following categories:

- Hazardous materials
- Infectious medical wastes
- Recyclables
- Trash

Each waste stream would be handled separately and collected in different containers. The solid waste in the hazardous medical waste, hazardous materials, and trash waste streams would be collected at the loading docks and disposed of appropriately. Any potentially hazardous materials would be trucked to various State of Oregon–approved surface disposal facilities. It is assumed that the new VA facility would be registered with the U.S. Environmental Protection Agency (EPA) as a handler of hazardous materials and chemical products and would be registered as a large quantity generator (over 1,000 kilograms of hazardous waste or 1 kilogram of acutely hazardous waste per month) under the Resource Conservation and Recovery Act (RCRA; 42 United States Code [U.S.C.] § 6901 et seq.). All material generation, storage and handling by the medical facilities operations would be recorded and reported to the EPA in compliance with the appropriate regulations.

Some of the medical equipment would use radioactive materials. All radioactive materials would be licensed and tracked in compliance with the U.S. Nuclear Regulatory Commission regulations and procedures and the building would be constructed to provide shielding against radiation from x-ray equipment.

Location, construction, and arrangement of compressed medical gas or other flammable and combustible liquid storage areas would comply with National Fire Protection Association 99 health care facilities codes. All areas considered to be hazardous areas (such as pharmacies, laboratory, and medical storage areas) would be separated by one-hour-fire rated construction.

No materials containing asbestos would be used in construction. Radon detectors would be used to ensure that levels do not equal or exceed the EPA action level for homes of 4 picocuries per liter (pCi/L). An analysis of water samples for radon would also be performed.

In the event hazardous or regulated materials were spilled, measures would be taken to control the spill and the Emergency Response Hotline would be notified, as required. After clean-up, the hazardous or regulated materials and any contaminated materials would be removed from the location and disposed of at an approved disposal facility.

## **2.2.2 Location 4B**

Under Location 4B, the Eugene CBOC would be relocated to an approximately 12.7-acre parcel located in Section 16, Township 17 South, Range 3 West, in Lane County, Oregon (see Figure 2-1). The facility would be oriented southward to permit public and staff access from Chad Drive. Currently, Location 4B is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential. This location was selected as a viable location due to the size, shape, accessibility, utilities, surrounding property use, soils, topography, aesthetics, and lack of restrictions to development and potential future expansion of the facility (VA 2011).

In general, most aspects of Location 4B would be the same as under Location 4A. As such, only those subsections and details that would differ substantively from Location 4A are discussed below.

### **2.2.2.1 CBOC AND ANCILLARY FACILITIES**

The site plan would be reduced to 12.7 acres to accommodate the smaller size of the parcel.

### **2.2.2.2 ACCESS ROADS AND PARKING AREAS**

The parking lot design would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4B.

### **2.2.2.3 LANDSCAPING**

The parking lot green space design and location of stormwater swales would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4B. The landscaping design would also incorporate a fenced walking path and outdoor break area.

## **2.2.3 Location 4C**

Under Location 4C, the Eugene CBOC would be relocated within an approximately 13.7-acre parcel located at the Villages at Marcola Meadows in Sections 24 and 25, Township 17 South, Range 3 West, and Sections 19 and 30, Township 17 South, Range 2 West, in Lane County, Oregon (Figure 2-2). Marcola Meadows is an approved master-planned mixed-use development complex for health care facilities, professional offices, retail, and shopping. The property sits on the northwest corner of Marcola Road and 28th Street and would provide access to the facility via State Route (SR) 126/Marcola Road. The location is relatively level and comprises open fields. Surrounding land use is commercial and residential.

This location was selected as a viable location due to the size, shape, accessibility, utilities, surrounding property use, soils, topography, aesthetics, and lack of restrictions to development and potential future expansion of the facility (VA 2011).

In general, most aspects of Location 4C would be the same as under Location 4A. As such, only those subsections and details that would differ substantively from Location 4A are discussed below.

### **2.2.3.1 CBOC AND ANCILLARY FACILITIES**

The site plan would include a separate concrete service yard, ramp, and loading dock as part of ancillary facilities. The facility would also include a multisurface outdoor rehabilitation court with an obstacle therapy area.

### **2.2.3.2 ACCESS ROADS AND PARKING AREAS**

The parking lot design would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4C. The location would provide a total of 699 parking spaces, including 629 standard bays, 59 accessible spots, and 11 van-accessible spots.

### **2.2.3.3 LANDSCAPING**

The parking lot green space design and location of stormwater swales would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4C. The landscaping design would also incorporate a walking path with resting points.

### **2.2.3.4 UTILITIES AND PUBLIC SERVICES**

The Marcola Meadows Location is served by a municipal sewer via an existing 42-inch wastewater main extending east-west through the proposed development (including VA parcel). The development has gained master-plan approval to connect to this 42-inch pipe at two locations. One is east of the location and the other is just west of VA parcel. It is anticipated that the more practical sewer connection point would be the western lateral. This connection would be completed by extending a public 10-inch main north from the 42-inch main in the new collector roadway to the service entrance driveway. A private service lateral would then be constructed in the service entrance drive to the building. The sewer is at sufficient depth to provide gravity service to the proposed VA building.

Domestic and fire water service for the Marcola Meadows development, including the CBOC, would be provided via a newly constructed 24-inch water main along the north side of Marcola Road. A 12-inch-diameter public looped pipe is proposed to be installed north of the existing 24-inch line to also serve the CBOC, as well as other future buildings in the area.



Figure 2-2. Map showing Location 4C.

## **2.2.4 Location 4D**

Under Location 4D, the Eugene CBOC would be relocated to an approximately 14.6-acre parcel located in Section 16, Township 17 South, Range 3 West, in Lane County, Oregon (see Figure 2-1). The facility would be oriented southward to permit public and staff access from Chad Drive. Currently, Location 4D is undeveloped with relatively flat topography; minimal grading would be required. Surrounding land use is commercial and residential. This location was selected as a viable location due to the size, shape, accessibility, utilities, surrounding property use, soils, topography, aesthetics, and lack of restrictions to development and potential future expansion of the facility (VA 2011).

In general, most aspects of Location 4D would be the same as under Location 4A. As such, only those subsections and details that would differ substantively from Location 4A are discussed below.

### **2.2.4.1 CBOC AND ANCILLARY FACILITIES**

The site plan would include an outdoor courtyard space for rehabilitation and therapy activities.

### **2.2.4.2 ACCESS ROADS AND PARKING AREAS**

The parking lot design would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4D and comply with City of Eugene standards for perimeter and interior parking lot landscape requirements.

### **2.2.4.3 LANDSCAPING**

The parking lot green space design and location of stormwater swales would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4D. The landscaping design would also incorporate a paved walking loop; a northwest garden vegetated with Pacific Northwest native trees, shrubs, and perennials; a healing garden; and a memorial grove of trees.

## **2.2.5 Location 4E**

Under Location 4E, the Eugene CBOC would be relocated to a site consisting of three parcels, totaling 9.8 acres, located in Section 22, Township 17 South, Range 3 West, in Lane County, Oregon (Figure 2-3). The facility would be oriented west-facing to permit public and staff access from Game Farm Road. The current location is undeveloped with relatively flat topography and moderate tree cover; minimal grading would be required. Surrounding land use is residential and medical. This location was selected as a viable location due to the size, shape, accessibility, utilities, surrounding property use, soils, topography, aesthetics, and lack of restrictions to development and potential future expansion of the facility (VA 2011).

In general, most aspects of Location 4E would be the same as under Location 4A. As such, only those subsections and details that would differ substantively from Location 4A are discussed below.

### **2.2.5.1 CBOC AND ANCILLARY FACILITIES**

The site plan would be reduced to 9.7 acres to accommodate the smaller lot size of the parcel.

### **2.2.5.2 ACCESS ROADS AND PARKING AREAS**

The parking lot design would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4E.

### **2.2.5.3 LANDSCAPING**

The parking lot green space design and location of stormwater swales would be modified, as compared to Location 4A, to account for the lot dimensions of Location 4E. The landscaping design would also incorporate a meditation garden and walk, in addition to an entrance garden and public art location adjacent to the CBOC.

## **2.3 No Action**

Under the No Action Alternative, the new CBOC would not be developed and lease locations would remain in their present undeveloped condition. The No Action Alternative would not accommodate future Veteran needs in the area, and lease locations could be developed for other commercial uses, resulting in an overall beneficial or negative impact to the region, depending on the type of development.

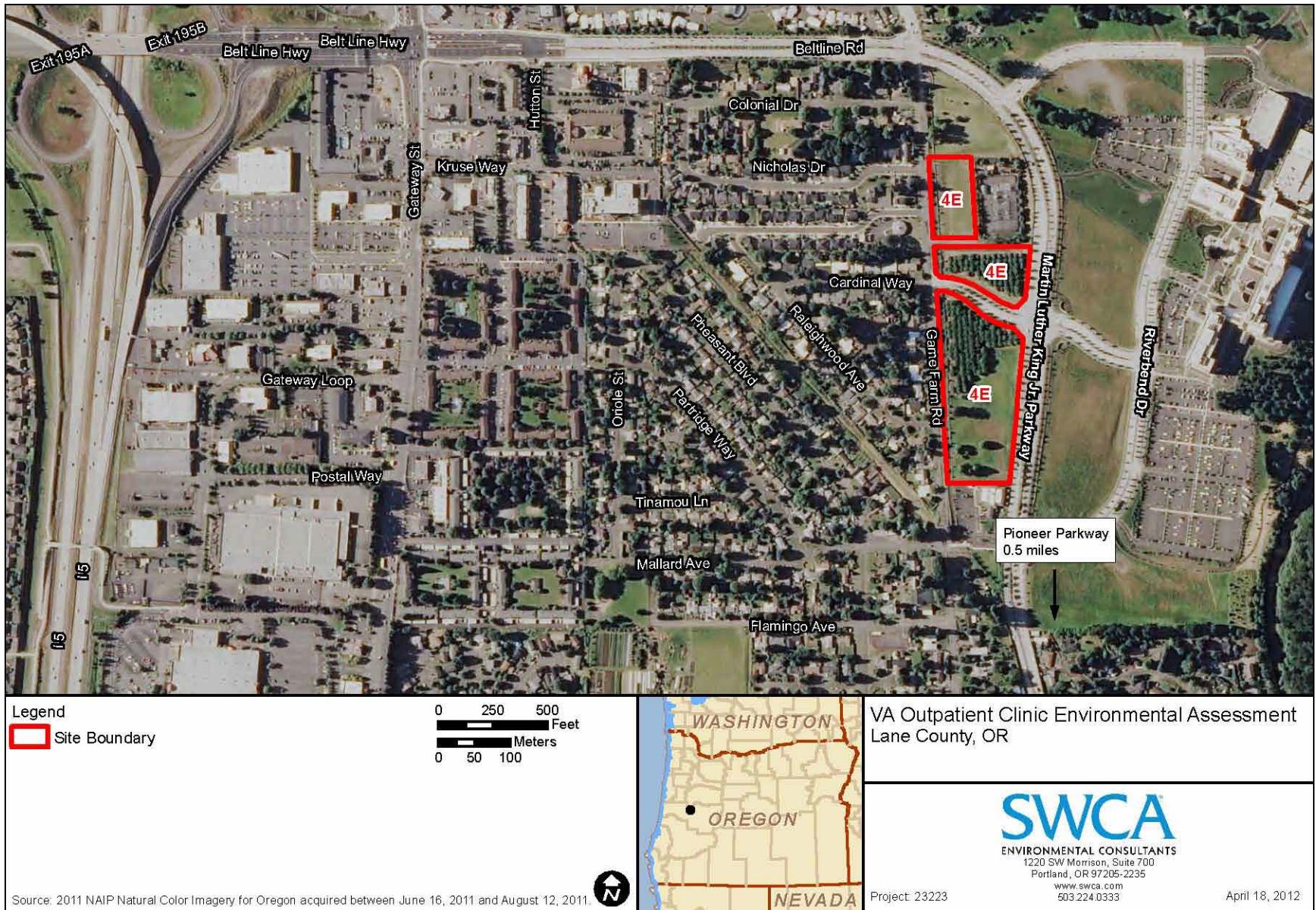


Figure 2-3. Map showing Location 4E.

## **2.4 Best Management Practices**

The Eugene CBOC would comply with applicable energy and water efficiency and sustainability mandates specified in Executive Order 13423, Strengthening Federal Environmental, Energy, and Transportation Management, including the Federal Leadership in High Performance and Sustainable Buildings Memorandum of Understanding; and the Energy Policy Act of 2005; including all published instructions, standards, and guidance associated with each.

The following best management practices (BMPs) would also be implemented to minimize adverse impacts to sensitive environmental resources.

### **2.4.1 General Construction**

- Prior to construction, the contractor would be responsible for coordination of the location and staking of all on-site utilities.
- All equipment and vehicular access for construction would be confined to the project area. Roadways outside the cemetery property would not be used as a staging area for construction equipment or for parking.
- Grading contractor would be required to prepare and adhere to a plan for management of excavated material.
- All construction vehicles would be cleaned before bringing them onto the location to prevent noxious weeds and invasive plant species from spreading during construction.
- All construction BMPs would be observed.

### **2.4.2 Air Quality and Dust Control**

- During construction, dust-control measures would be implemented by using water trucks and erosion-control measures would be implemented by using erosion-control materials.
- Soil stockpiles would be covered during construction and operations.
- Construction vehicles and machinery engines would be properly maintained.

### **2.4.3 Cultural Resources**

- If any previously unknown cultural resources are identified during implementation of the Proposed Action, all work would immediately cease within 100 yards of the discovery, VA would be notified, and a qualified archaeologist would be notified to evaluate the find.

### **2.4.4 Noise**

- The developer would comply with all state, county, and city noise codes and ordinances.

### **2.4.5 Erosion Control, Revegetation and Drainage**

- The developer would obtain a stormwater permit prior to construction.
- A stormwater pollution prevention plan (SWPPP) would be developed for the project area in accordance with good engineering practices and signed by a professional engineer registered in Oregon. The SWPPP would identify potential sources of pollution, which may reasonably be expected to affect the quality of stormwater discharges from the construction site, and describe and ensure the implementation of practices that would be used to reduce the pollutants in stormwater discharges associated with construction activity at the site. The plan would include description of existing interim and permanent stabilization practices, including site-specific scheduling of the implementation of the practices.

- The SWPPP would ensure that existing vegetation is preserved where attainable and that disturbed portions of the site are stabilized. Stabilization practices may include temporary seeding, permanent seeding, mulching, geotextiles, sod stabilization, vegetative buffer strips, protection of trees, preservation of mature vegetation, and other appropriate measures. Use of impervious surfaces for stabilization would be avoided. At a minimum, silt fences, vegetative buffer strips, or equivalent sediment controls would be used for all down slope boundaries (and those side slope boundaries deemed appropriate as dictated by individual site conditions) of the construction area.
- Stabilization measures would be initiated as soon as practicable in portions of the site where construction activities have temporarily or permanently ceased, but in no case more than 14 days after the construction activity in that portion of the site has temporarily or permanently ceased.
- Erosion and sedimentation control measures would be used on slopes to respect existing riparian vegetation areas.
- A revegetation and restoration plan would be in place prior to construction activities and be implemented immediately following disturbance to stabilize soils. Container plants and seed mixes would include a high-quality mix of native grasses, forbs, and shrubs to stabilize soils, minimize weeds, and provide forage and habitat for wildlife and birds.

#### **2.4.6 Wildlife Protection**

- If deemed necessary upon identification of VA's preferred location, surveys for threatened and endangered species, nesting migratory birds, and raptors would be conducted prior to construction activities.
- If deemed necessary upon identification of VA's preferred location, surveys for noxious weeds and invasive plant species would be conducted prior to and during construction activities. During operations, staff would, as necessary, continue to monitor disturbed areas for weed introduction.

#### **2.4.7 Solid and Hazardous Waste Storage and Disposal**

- All hazardous materials used during construction and operation would be stored on-site in storage tanks/vessels/containers that are specifically designed for the characteristics of the materials to be stored; as appropriate, the storage facilities would include the needed secondary containment in case of tank/vessel failure. All secondary containment would meet Occupational Safety and Health Administration requirements and would be sized to contain 110% of full tank/vessel volume. A variety of safety-related plans and programs would be developed and implemented to ensure safe handling, storage, and use of hazardous materials (e.g., Hazardous Material Business Plan). Construction personnel would be supplied with appropriate personal protective equipment (PPE) and would be properly trained in the use of PPE and the handling, use, and clean-up of hazardous materials used at the construction site, as well as procedures to be followed in the event of a leak or spill. Adequate supplies of appropriate clean-up materials would be stored on-site.
- Construction sites, material storage yards, and access roads would be kept in an orderly condition throughout the construction period. Approved enclosed refuse containers would be used throughout the project area. Refuse and trash would be removed from the construction site and disposed of in an approved manner. Oils or chemicals would be hauled to a disposal facility authorized to accept such materials.
- A portable toilet would also be located on-site during construction.

## CHAPTER 3 AFFECTED ENVIRONMENT AND ENVIRONMENTAL CONSEQUENCES OF THE ALTERNATIVES

### 3.1 Introduction

This EA was prepared in accordance with NEPA, the Council on Environmental Quality (CEQ) regulations implementing NEPA (40 C.F.R. §§ 1500–1508), and VA regulations (38 C.F.R. § 26.4 (a)). VA policy includes provisions to act with care in carrying out its mission of providing services for Veterans and to ensure it does so consistently with national environmental policies. Specifically, VA shall ensure that all practical means and measures are used to

- protect, restore, and enhance the quality of the human environment;
- avoid or minimize adverse environmental consequences, consistent with other national policy considerations;
- prepare concise and clear environmental documents which shall be supported by documented environmental analyses; and
- preserve historical, cultural, and natural aspects of our national heritage.

The following sections examine the impacts of the proposed CBOC relocation and expansion on aesthetics; air quality; cultural and historical resources; geology and soils; hydrology and water quality; wildlife and habitat; noise; land use; floodplains, wetlands, and coastal zone management areas; socioeconomics; community services; solid waste and hazardous materials; transportation and parking; utilities; and environmental justice. Each section contains discussions of each environmental resource evaluated, the existing conditions at the location under consideration for renovation and development as a CBOC, potential impacts associated with the proposed plans for the property, and VA's strategy to mitigate impacts.

Impacts (or effects) are modifications to the existing environment and effects on humans brought about by an action. Impacts can be beneficial or adverse; they can result from the action directly or indirectly; and they can be temporary, permanent, or cumulative in nature. Direct impacts from a proposed project affect a specific resource and generally occur at the same time and place. Indirect impacts can result from one resource affecting another (e.g., soil erosion and sedimentation affecting water resources) or can occur later in time or removed in location. Indirect impacts described in this EA are those that are reasonably expected to occur. Cumulative effects result from the incremental effects of an action when added to other past, present, and reasonably foreseeable future actions not linked to this project. Direct and indirect effects are described in the Environmental Consequences sections for each resource area. Cumulative effects are discussed in Section 3.17.

### 3.2 Aesthetics

*Aesthetics* refers to the visual resources, including natural and human-made features that give a particular piece of land its aesthetic properties. In general, CBOC projects should be built to create a professional and aesthetically appealing appearance representing the nation's pride in its Veteran population (VA 2011). The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through a qualitative analysis of changes to the general character of the area.

### **3.2.1 Existing Environment**

The Eugene/Springfield area is a highly developed urban setting characterized by mixed residential, commercial, agricultural, and industrial uses and extensive roadway development. Green space and parks are scattered throughout the two cities.

### **3.2.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.2.2.1 LOCATION 4A**

Under Location 4A, there would be beneficial long-term aesthetic impacts resulting from the relocation and expansion of the Eugene CBOC. Currently, Location 4A is undeveloped with minimal vegetation cover within an urban zoned area. CBOC construction would create an attractive facility, gardens, green space and walkways, and it would add to the overall aesthetics of the area. Construction areas would be cleaned up and landscaped appropriately. Development of the parcel would also remove invasive weeds, if present, and prohibit unauthorized dumping. No mitigation measures are required to reduce impacts to less than significant levels.

#### **3.2.2.2 LOCATION 4B**

Under Location 4B, aesthetic impacts and mitigation would be the same as outlined for Location 4A.

#### **3.2.2.3 LOCATION 4C**

Under Location 4C, aesthetic impacts and mitigation would be the same as outlined for Location 4A.

#### **3.2.2.4 LOCATION 4D**

Under Location 4D, aesthetic impacts would be the same as outlined in Location 4A, with one exception. Construction of the proposed facility would occur within the viewshed of properties that may be eligible for the National Register of Historic Places (NRHP). Additional surveys would need to be conducted to determine project visual impacts to these properties; however, any impacts would be mitigated during consultation with the Oregon State Historic Preservation Office (SHPO; see Section 3.4 for additional information).

#### **3.2.2.5 LOCATION 4E**

Under Location 4E, aesthetic impacts would remain the same as outlined in Location 4A, with one exception. Construction of the proposed facility would occur within the viewshed of NRHP-eligible properties. Additional surveys would need to be conducted to determine project visual impacts to these properties; however, any impacts would be mitigated during consultation with SHPO (see Section 3.4 for additional information).

#### **3.2.2.6 NO ACTION**

Under the No Action Alternative, there would be no change in aesthetic resources in the project area. The project area would remain an urban zone with a mix of developed and undeveloped properties. Lack of development of the identified locations would not preclude future development for a different use, however, which could result in beneficial or negative aesthetic resource impacts, depending on the type of development.

## **3.3 Air Quality**

*Air quality* refers to the concentration of air contaminants in a specific location. Air quality is determined by the type and amount of pollutants emitted into the atmosphere, the size and topography of the air basin, and the prevailing meteorological conditions. The Clean Air Act of 1970 (CAA, 42 U.S.C. § 7401 et seq.), as amended, is the comprehensive federal law that regulates air emissions from stationary and mobile sources to protect human health and the environment as well as visibility in sensitive areas. The CAA authorizes the EPA to establish National Ambient Air Quality Standards (NAAQS) to protect public health and the environment. Air quality indicators include air pollutant concentration and air quality-related values such as visibility. The CAA defines the NAAQS as levels of pollutants above which detrimental effects on human health and welfare may result. The EPA established NAAQS for six criteria pollutants: carbon monoxide (CO), nitrogen oxides ( $\text{NO}_x$ ), ozone ( $\text{O}_3$ ), lead (Pb), sulfur oxides, and two categories of particulate matter: fine particulates that are 10 micrometers or less in diameter ( $\text{PM}_{10}$ ) and fine particulates with a diameter of 2.5 micrometers or less ( $\text{PM}_{2.5}$ ).

The EPA assigns classifications to geographic areas with respect to air quality conditions. When an area is considered for classification, there are three possible outcomes of the designation process for each of the criteria pollutants:

- Attainment. Any area that meets the national primary or secondary ambient air quality standard for the pollutant.
- Nonattainment. Any area that does not meet (or that contributes to ambient air quality in an area that does not meet) the national or secondary standard for the pollutant.
- Unclassified. Any area that cannot be classified on the basis of available information as meeting or not meeting the national primary or secondary ambient air quality standard for the pollutant.

*Maintenance areas* are those geographic areas that have had a history of nonattainment but are now consistently meeting the NAAQS. Maintenance areas have been redesignated by the EPA from “nonattainment” to “attainment with a maintenance plan.”

The magnitude and severity of potential impacts from the Proposed Action and the No Action Alternative are measured through a qualitative analysis of activities likely to result in changes to air quality and visibility or which would result in exceedances of NAAQS.

### **3.3.1 Existing Conditions**

According to the Oregon Department of Environmental Quality (ODEQ) website, Eugene and Springfield are located within a nonattainment area for particulate matter, ( $\text{PM}_{10}$ ), with a maintenance plan in development (ODEQ 2011). According to the Lane Regional Air Protection Agency (LRAPA), the Eugene area last exceeded the  $\text{PM}_{10}$  standard in 1987 (LRAPA 2010). The two cities are also a designated maintenance area for carbon monoxide (ODEQ 2011).

### **3.3.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.3.2.1 LOCATION 4A**

Under the Proposed Action, emissions from heavy equipment operation, emissions from vehicular or truck traffic, or generation of dust would temporarily increase levels of some pollutants (primarily  $\text{PM}_{10}$ ,  $\text{PM}_{2.5}$ , CO, and  $\text{NO}_x$ ) during construction activities. Impacts to local air quality during construction are expected to be short-term and intermittent, due to the small amount of emissions, short time frame, and

meteorological conditions that would disperse pollutants. These impacts would not affect visibility or result in exceedances of NAAQS.

During construction, water trucks would be used for dust control measures, and erosion control measures would be implemented by using erosion control materials. To reduce the emission of pollutants from internal combustion engines, appropriate construction BMPs would be observed, and construction vehicles and machinery engines would be properly maintained (see Section 2.4.2). After construction, intermittent, short-term increases of some pollutants due to regular operations and daily traffic to and from the facility would occur, with no expected increase in criteria pollutants.

### **3.3.2.2 LOCATION 4B**

Under Location 4B, air quality impacts and mitigation would be the same as outlined in Location 4A.

### **3.3.2.3 LOCATION 4C**

Under Location 4C, air quality impacts and mitigation would be the same as outlined in Location 4A.

### **3.3.2.4 LOCATION 4D**

Under Location 4D, air quality impacts and mitigation would be the same as outlined in Location 4A.

### **3.3.2.5 LOCATION 4E**

Under Location 4E, air quality impacts and mitigation would be the same as outlined in Location 4A.

### **3.3.2.6 NO ACTION**

Under the No Action Alternative, there would be no new impacts to the air quality. However, existing sources of air pollution would continue to generate emissions in the project area.

## **3.4 Cultural and Historical Resources**

*Cultural and historic resources* refer to elements of our cultural heritage, including cultural landscapes, archaeological sites, historical records, old buildings, artifacts, and spiritual places. In accordance with the National Historic Preservation Act and its implementing regulations at 36 C.F.R. § 800 (also known as the Section 106 process), consideration must be given to the effects of an undertaking on cultural resources that are either listed on the NRHP or have been determined eligible for the listing on the NRHP.

The magnitude and severity of potential impacts from the Proposed Action and the No Action Alternative are measured through an analysis of changes to cultural resources eligible or potentially eligible for the NRHP.

### **3.4.1 Existing Conditions**

#### **3.4.1.1 FILE SEARCH**

A qualified archaeologist from SWCA conducted a file search at the Oregon SHPO on April 6, 2012, based on the legal sections encompassing the five potential locations for the CBOC. The file search included records of previous cultural resource inventories, previously recorded archaeological site and isolate records, and records of historic properties. The search for previously recorded archaeological

resources was conducted within a 1-mile buffer around each potential location. The search for historic properties was extended outwards to an approximated viewshed based on the estimated potential to see the property from each potential project location and vice versa. The results of this search are listed in Appendix A.

The file search was supplemented by an online review of U.S. Geological Survey (USGS) quadrangle maps dating to 1946, Metsker maps dating to 1934, and General Land Office (GLO) maps dating to 1853, 1860, and 1890, focusing on features depicted within the boundaries of each potential CBOC location, hereafter defined as the direct area of potential effect, or APE (GLO 1853, 1860, 1890; Metsker 1934; USGS 1946). Together, these sources provided an overview of the possibility for historic resources within the APE for each potential CBOC location.

The data gathered during the files search and supplemental records search provided the core information used to rank and assess each potential CBOC location for cultural sensitivity. In addition to the presence or absence of cultural resources within either the APE or the 1-mile buffer of the five locations, there are several other environmental factors that may impact the possibility of encountering archaeological and historical resources. These were broken down into three categories: previous ground disturbance (which could have obscured or destroyed archaeological evidence); topography; and distance to water (Appendix A: Table A-2) (Google Earth 2012; USGS 1979). These environmental variables were weighted secondary when ranking relative to the data derived from the files and supplemental records search.

### **3.4.1.2 COMPARATIVE RANKING OF CULTURAL SENSITIVITY**

Each potential CBOC location was ranked within a range of high to low sensitivity for encountering cultural resources (Appendix A: Table A-2). Common surface conditions of all potential CBOC locations established that in no case would there be no potential for encountering cultural resources. As noted above, the ranking of the potential CBOC locations is weighted primarily on the data identified during the file searches and supplemental records search, and secondarily on environmental factors. No archaeological sites or aboveground historic resources have been previously identified within the APE for any of the potential CBOC locations. Potential CBOC locations that have a close proximity to previously identified cultural resources and other potential resources based on historic maps are ranked higher in sensitivity (Appendix A: Table A-1). The eligibility and evaluation for listing in the NRHP was also considered for all previously recorded resources that were identified.

Potential CBOC locations that are closer to water, exhibit topographic characteristics conducive for habitation (such as higher and flatter locations), and that have a low level of ground disturbance were ranked higher in sensitivity. Importantly, all potential CBOC locations appear to have been heavily disturbed by previous agricultural and industrial activities, and all are located on a river terrace of the McKenzie River with gently undulating terrain. Although all of the potential CBOC locations are within 1 mile of the McKenzie River, Location 4E is particularly close and thus may have a higher sensitivity for encountering cultural resources typical of river terraces, including shell middens or fishing remnants.

### **3.4.1.3 LOCATION 4A: MEDIUM-LOW SENSITIVITY**

Location 4A is ranked as having medium-low sensitivity for cultural resources, largely due to the isolated archaeological resources that have been previously identified within the 1-mile buffer surrounding this location. This location appears to have been highly disturbed from previous activities, including use as an agricultural field, and contains several unimproved modern drainage ditches. Although the likelihood of encountering surface or shallowly buried cultural resources is considered low given the high level of disturbance, the presence of previously recorded resources in the vicinity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### **3.4.1.4 LOCATION 4B: MEDIUM-LOW SENSITIVITY**

Location 4B is also ranked as having medium-low sensitivity for cultural resources, again largely due to the isolated archaeological resources that have been previously identified within the 1-mile buffer surrounding this location. This location appears to have been highly disturbed from previous activities, including use as an agricultural field, and contains several unimproved modern drainage ditches. Although the likelihood of encountering surface or shallowly buried cultural resources is considered low given the high level of disturbance, the presence of previously recorded resources in the vicinity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### **3.4.1.5 LOCATION 4C: MEDIUM-LOW SENSITIVITY**

Location 4C is also ranked as having medium-low sensitivity for cultural resources due to the relatively few archaeological resources that have been previously identified within the 1-mile buffer surrounding this location, and the fact that those resources that have been previously identified are approximately 0.9 mile away. Although the resources have been recorded as sites rather than isolated finds, they do not appear to have extensive associated remains. The one aboveground historic property that has been previously identified as within the viewshed of this location is considered not eligible for listing on the NRHP. Given that the area appears to be a postindustrial field with several unimproved modern roads and modern drainage ditches and therefore a high level of disturbance, it would be unlikely to encounter surface or shallowly buried cultural resources.

### **3.4.1.6 LOCATION 4D: HIGH SENSITIVITY**

Location 4D is ranked as having high sensitivity for cultural resources both due to the isolated archaeological resources that have been previously identified within the 1-mile buffer surrounding this location as well as the presence of four aboveground historic properties within the viewshed that have all been recommended as eligible for listing on the NRHP. Ranking this location's sensitivity as high is also due to the close proximity of one archaeological resource, described as an isolated find. An isolated historic-period hand-forged hook and four square nails were identified less than 0.1 mile from the direct APE of Location 4D. According to a 1934 Metsker map, a game farm was located immediately adjacent to the northeast of Location 4D, increasing the likelihood for encountering associated historic-period cultural resources. Given that the area appears to currently be an agricultural field and therefore has a high level of disturbance, it is unlikely that surface or shallowly buried cultural resources will be encountered. However, the presence of previously recorded resources in close proximity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### **3.4.1.7 LOCATION 4E: HIGHEST SENSITIVITY**

Location 4E is ranked as having the highest sensitivity for cultural resources among the five potential CBOC locations, largely due to the close proximity of an archaeological site. The Stevens Family Pioneer Cemetery was identified less than 0.1 mile from the direct APE of Location 4E. Although the cemetery has been fully excavated and the PeaceHealth Sacred Heart Medical Center at RiverBend has been constructed atop the cemetery's previous location, the close proximity of this site to Location 4E provides the likelihood of encountering historic-period cultural resources associated with the burials or the Stevens family homestead. This location is also ranked as having high sensitivity due to the presence of three aboveground historic properties within the viewshed that are also all associated with the Stevens property and that have been recommended as eligible for listing on the NRHP. According to a 1946 USGS map, two buildings were located within the western portion of Location 4E, increasing the likelihood for encountering associated historic-period cultural resources. Given that the area is located only 0.3 mile from the McKenzie River, there may a higher potential for precontact archaeological cultural resources in

deeper, intact deposits. Shallow intact deposits may exist in the portions of the Location 4E that have not been previously disturbed by agricultural practices.

### **3.4.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.4.2.1 LOCATION 4A**

Proposed development at Location 4A would include ground-disturbing activities such as earth moving, grading, and landscaping using heavy machinery, as well as fence installation around the new development area, which could result in disturbance or destruction of cultural resources. As noted above, although the likelihood of encountering surface or shallowly buried cultural resources is considered low given the high level of disturbance, the presence of previously recorded resources in the vicinity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

#### **3.4.2.2 NO MITIGATION MEASURES ARE REQUIRED TO REDUCE IMPACTS TO LESS THAN SIGNIFICANT LEVELS. UPON IDENTIFICATION OF VA'S PREFERRED LOCATION, A CULTURAL SURVEY WOULD TAKE PLACE TO IDENTIFY ANY CULTURAL RESOURCES ON THE PROPERTY. IF ANY PREVIOUSLY UNKNOWN CULTURAL RESOURCES ARE IDENTIFIED DURING IMPLEMENTATION OF THE PROPOSED ACTION, ALL WORK WOULD IMMEDIATELY CEASE, VA WOULD BE NOTIFIED, AND A QUALIFIED ARCHAEOLOGIST WOULD BE NOTIFIED TO EVALUATE THE FIND. LOCATION 4B**

Under Location 4B, cultural resource impacts and mitigation would be the same as outlined in Location 4A.

#### **3.4.2.3 LOCATION 4C**

Under Location 4C, cultural resource impacts would be the same as outlined in Location 4A. The one aboveground historic property previously identified within the viewshed is considered not eligible for NRHP listing; thus, development of Location 4C would not result in changes to cultural resources eligible or potentially eligible for the NRHP. No mitigation measures are required to reduce impacts to less than significant levels.

#### **3.4.2.4 LOCATION 4D**

Under Location 4D, cultural resource impacts would be the same as outlined in Location 4A. However, four aboveground historic properties within the viewshed of the location have been recommended as eligible for listing on the NRHP. Additional surveys would need to be conducted to determine project visual impacts to these properties; any impacts would be mitigated during consultation with SHPO.

The presence of an adjacent game farm also increases the likelihood for encountering associated historic-period cultural resources. If any previously unknown cultural resources are identified during implementation of the Proposed Action, all work would immediately cease, VA would be notified, and a qualified archaeologist would be notified to evaluate the find.

### **3.4.2.5 LOCATION 4E**

Under Location 4E, cultural resource impacts would be the same as outlined in Location 4A. However, three aboveground historic properties within the viewshed of the location are associated with the Stevens property and have been recommended as eligible for listing on the NRHP. Additional surveys would need to be conducted to determine visual impacts to these properties from Location 4E; however, any impacts would be mitigated during consultation with SHPO.

Given that the area is located only 0.3 mile from the McKenzie River, there may a higher potential for Precontact archaeological cultural resources in deeper, intact deposits. If any previously unknown cultural resources are identified during implementation of the Proposed Action, all work would immediately cease, VA would be notified, and a qualified archaeologist would be notified to evaluate the find.

### **3.4.2.6 NO ACTION**

Under the No Action Alternative, no new improvement or developments would be made to potential lease locations. Therefore, no impacts to cultural resources would occur from the project, although other future site development at these locations could result in cultural resource impacts.

## **3.5 Geology and Soils**

Possible impacts to geology and soils comprise the potential for loss of soils and changes in geological conditions due to rock excavation, soil erosion, soil compaction, soil horizon removal, grading, and cutting and filling operations.

The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through an analysis of geological impacts and acres of surface disturbance with high potential for wind and water erosion.

### **3.5.1 Existing Conditions**

The project area lies within the southern portion of the Willamette Valley Geomorphic Province, east of the Coast Range Mountains and west of the Cascade Mountains. The Willamette Valley Province is a regional lowland that extends just south of Eugene, Oregon, to Vancouver, British Columbia. Within Oregon, this narrow alluvial plane is approximately 20 to 40 miles wide (Orr and Orr 1996 as cited in PSI 2006). The province is drained by the Willamette River.

Prior to the adjacent mountain formation, low-energy streams and lakes were present within the southern Willamette Valley, with soils made up of silts and clays to various depths. With the rapid uplift of the adjacent Cascade Mountains, steepened stream gradients resulted in increased erosion of the Cascades and rapid deposition of thick gravel layers occurred within portions of the southern Willamette Valley. During the most recent glaciations (from 12,000 to 2.5 million years ago) the Missoula Floods filled the Willamette Valley to a depth of approximately 350 feet with each flooding event (Allen et al. 1986 as cited in PSI 2006), further depositing additional silts and clays. The presence of these thick layers of silts, clays, and gravels within the Willamette Valley make it unlikely that any significant geologic features would be encountered in near-surface excavation activities.

Natural Resources Conservation Service (NRCS) 2006 soil survey geographic data were used to determine soil mapping units, soils series, and soil characteristics for each parcel. Six soil types are located within the five locations (Table 3-1). Soils are characterized by silty clay loams and/or gravelly loams that are poorly to moderately well drained with low flooding potential.

**Table 3-1.** Project Area Soil Types

| Soil Type                      | % Slope | Water Erodibility <sup>1</sup> | Wind Erodibility <sup>2</sup> | Drainage                | Acres |      |       |       |      |
|--------------------------------|---------|--------------------------------|-------------------------------|-------------------------|-------|------|-------|-------|------|
|                                |         |                                |                               |                         | 4A    | 4B   | 4C    | 4D    | 4E   |
| 5: Awbrig silty clay loam      | 0–2     | 0.32                           | 7                             | Poorly drained          | 4.12  | 7.14 |       | 3.24  |      |
| 31: Coburg silty clay loam     | 0–3     | 0.28                           | 7                             | Moderately well drained | 11.42 | 5.54 |       | 11.36 |      |
| 75: Malabon silty clay loam    | 0–3     | 0.24                           | 7                             | Well drained            |       |      | 30.58 |       | 8.92 |
| 76: Malabon-Urban land complex | 0–3     | 0.24                           | 7                             | Well drained            |       |      | 0.15  |       | 0.85 |
| 100: Oxley gravelly silt loam  | 0–3     | 0.20–0.28                      | 6                             | Somewhat poorly drained |       |      | 3.43  |       |      |
| 118: Salem gravelly silt loam  | 0–3     | 0.20–0.28                      | 6                             | Well drained            |       |      | 66.33 |       |      |

<sup>1</sup> Water erodibility measured by K-factor. K-factor values range from 0.05 to 0.69. Soils with the highest susceptibility to water erosion are assigned a value of 0.69.

<sup>2</sup> Wind erodibility is expressed as a soil grouping index of 1 to 8. The group number is based on sand, silt, and clay content and the susceptibility soils of various contents have to being blown by wind. Sandier soils have the highest wind erodibility and are assigned to Group 1. Soils with the lowest wind erodibility are assigned to Group 8.

Source: NRCS (2006).

Wind and water erosion hazards become critical issues when protective vegetation is removed during and after construction activities, such as road and site construction. Typically, soils found on steeper slopes have a high water-erosion hazard, and soils found on gentler slopes have a low water-erosion hazard. Finer-grained soils are at greater risk of wind erosion, and soils with more gravel and/or stones have a lower risk of wind erosion. Water and wind erosion rates for soils at each location are low.

### **3.5.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.5.2.1 LOCATION 4A**

Grading and excavation are common practices during building construction. Generally construction locations are graded and excavations are made for building foundations.

Under Location 4A, construction of buildings, roads, and/or subsurface utility lines would require the removal of small amounts of near-surface materials but would have no measurable impacts on geological features. No large-scale excavations into the deeper strata are expected.

Long-term impacts to soils would occur as a result of implementation of Location 4A. There would be approximately 13.2 acres of surface disturbance from building construction within the parcel. Soils that are exposed and allowed to dry could become eroded by wind. Grading and location construction activities occurring during the wet season or precipitation events could cause water erosion and sediment mobilization. Wind erosion could also suspend dust particles, adversely affecting air quality; water erosion could carry sediments into drainages, which could adversely affect water quality. However, the soils within the location have low wind and low to moderate water erosion potential.

Implementation of an erosion and sediment control plan, including use of BMPs as discussed in Section 2.4, would dramatically reduce erosion associated with the project and limit the potential for off-site sediment transport. A qualified individual would monitor construction, excavation, fill, and compaction activities. To mitigate the potential impacts caused by erosion and related impacts to water and air resources, appropriate construction BMPs would be implemented as required by the ODEQ, Lane County, and other applicable rules and regulations (see Section 2.4). The erosion control methods would account for factors that influence the degree of erosion such as wet season construction activities. Final site stabilization would occur prior to the completion of the project.

### **3.5.2.2 LOCATION 4B**

Impacts to geology and soils under Location 4B are expected to be similar to the impacts described above for Location 4A. There would be a maximum of approximately 12.7 acres of surface disturbance from building construction. Wind and water erosion potentials and construction BMPs would be similar those associated with Location 4A.

### **3.5.2.3 LOCATION 4C**

Impacts to geology and soils under Location 4C are expected to be similar to the impacts described above for Location 4A. As with Location 4A, there would be approximately 13.2 acres of surface disturbance from building construction within the parcel. Wind erosion potential is slightly increased and water erosion potential is slightly decreased when compared to Location 4A; however, construction BMPs would be similar to Location 4A.

### **3.5.2.4 LOCATION 4D**

Location Impacts to geology and soils under Location 4D are expected to be similar to the impacts described above for Location 4A. As with Location 4A, there would be approximately 13.2 acres of surface disturbance from building construction within the parcel. Wind and water erosion potential and construction BMPs would be similar to Location 4A.

### **3.5.2.5 LOCATION 4E**

Impacts to geology and soils under Location 4E are expected to be similar to the impacts described above for Location 4A. There would be a maximum of approximately 9.7 acres of surface disturbance from building construction. Water erosion potential is slightly less than Location 4A; however, wind erosion potential and construction BMPs would be similar to Location 4A.

### **3.5.2.6 NO ACTION**

Under the No Action Alternative, there would be no new impacts to geology and soils within any of the potential lease locations.

## **3.6 Hydrology and Water Quality**

Possible impacts to hydrology and water quality comprise the potential for modifications to the timing and frequency of water flows and potential degradation of surface or groundwater water quality or quantity. The magnitude and severity of potential surface water and groundwater impacts are measured through an analysis proximity to surface waters and groundwater sources of drinking water.

### **3.6.1 Existing Conditions**

#### **3.6.1.1 SURFACE WATER**

The project area is located in the 30,554-acre Upper Willamette River–Spring Creek subwatershed and within a portion of the 33,268-acre McKenzie River–Walterville Canal subwatershed (northern portion of Location 4C). Weather in the region is characterized by wet period from November to March with a dry period during the summer months. Average annual precipitation ranges from 24 to 55 inches (NRCS 2002).

Stream channels are present within Locations 4A, 4B, 4C, and 4D. A connection to adjacent off-site surface waters is present on Locations 4A, 4B, and 4C, although all connections require flow through culverts. It is likely that the Willamette River would ultimately receive discharge from all five locations. ODEQ has listed the Willamette River as impaired under section 303(d) for toxins and temperature (StreamNet 2012).

#### **3.6.1.2 GROUNDWATER**

All five project locations are within a groundwater drinking water source area according to ODEQ (2012a). Thirty wells potentially supplying a source of drinking water occur within 1 mile of the locations (ODEQ 2012b); no potential contamination sources for groundwater contamination are located within this same distance (ODEQ 2012a). During the wetland reconnaissance visit conducted by SWCA Environmental Consultants (SWCA) on April 12, 2012, shallow groundwater, within 1 foot of the ground surface, was observed at Locations 4B, 4C, and 4D.

### **3.6.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.6.2.1 LOCATION 4A**

##### **Surface Water**

Surface water is present within the southern portion of Location 4A adjacent to Beltline Road. The surface water appears to have been recently modified and expanded for stormwater control and flows into the City of Eugene stormwater system. According to the site survey, this area has been placed within a protective easement thereby limiting potential development activity within the area (VA 2012a).

Potential surface water impacts from development could include increased erosion or sedimentation from construction activities and hydrologic modifications in timing and frequency of runoff. Development would require compliance with the federal stormwater program and implementation of BMPs for stormwater control and erosion, however. Coordination with the city, county, and ODEQ would be required to initiate appropriate permitting under the National Pollutant Discharge Elimination System (NPDES) and other local permits or authorizations, which could include but are not limited to, connections to existing water lines, sewer lines, and stormwater systems. Compliance with the stormwater management sections of 40 C.F.R. § 122 (EPA's NPDES regulations) is anticipated as long as BMPs are implemented. Post-construction BMPs discussed in Section 2.4 would mitigate potential stormwater impacts from increased development on water quality of receiving waters. During operations, implementation of an appropriate landscape-management program that minimizes runoff would minimize potential negative effects to water sources in the surrounding area. Consequently, it is expected that there would be no project-related water quality impacts or increase in flooding of the receiving surface waters associated with Location 4A.

## **Groundwater**

Location 4A is located within a groundwater drinking water source area. Potential impacts to groundwater associated with development would likely be limited to construction related spills/leaks and post construction runoff from paved surfaces. Construction spills and leaks would be avoided, contained, and cleaned to the extent practical and reported in accordance with ODEQ requirements. Stormwater would be treated per the state's NPDES requirements before release or potential infiltration. If a spill response plan is implemented during project construction and appropriate post construction stormwater treatment is implemented, than impacts to groundwater sources of drinking water would be minimized.

Although high groundwater was not observed on Location 4A, groundwater may be encountered during excavation activities. If construction is conducted during the wet season, groundwater pumping may be required and pumped waters would be treated and/or detained in accordance with NPDES permit requirements.

### **3.6.2.2 LOCATION 4B**

#### **Surface Water**

A culvert inlet is present within the southwestern corner of Location 4B that links the location to the surface water on Location 4A. This culvert drains a ditch that extends north through the location to an on-site wetland. Impacts to water quality and the stormwater runoff/retention regime as well as associated mitigation measures under Location 4B would be similar to the impacts described above for Location 4A.

#### **Groundwater**

Impacts to groundwater and mitigation measures are expected to be similar to the impacts described above for Location 4A.

High groundwater was observed on Location 4B, and groundwater may be encountered during excavation activities. If construction is conducted during the wet season, groundwater pumping may be required and pumped waters would be treated and/or detained in accordance with NPDES permit requirements.

### **3.6.2.3 LOCATION 4C**

#### **Surface Water**

Location 4C contains three jurisdictional surface waters, which connect to off-site surface waters through culverts. Due to the extent of surface waters within the location and proximity of the proposed development to these waters, development within Location 4C has an increased potential to impact surface waters relative to the other locations. Implementation of construction and post-construction BMPs discussed in Section 2.4 would help minimize water resource impacts. Use of upland portions of the location not adjacent to the surface waters would also reduce potential impacts. Therefore, it is expected that impacts to water quality and the stormwater runoff/retention regime as well as associated mitigation measures under Location 4C would be similar to the impacts and mitigation measures described above for Location 4A.

#### **Groundwater**

Impacts to groundwater and mitigation measures are expected to be similar to the impacts described above for Location 4A.

High groundwater was observed on Location 4C, and groundwater may be encountered during excavation activities. If construction is conducted during the wet season, groundwater pumping may be required and pumped waters would be treated and/or detained in accordance with NPDES permit requirements.

### **3.6.2.4 LOCATION 4D**

#### **Surface Water**

No streams or direct connections to off-site surface waters were observed within Location 4D. The lack of a direct connection limits the potential for development to directly impact surface waters, although the development of a stormwater system during construction could create new off-site connections. Therefore, it is expected that impacts to water quality and the stormwater runoff/retention regime as well as associated mitigation measures under Location 4D would be similar to the impacts and mitigation measures described above for Location 4A.

#### **Groundwater**

Impacts to groundwater and mitigation measures are expected to be similar to the impacts described above for Location 4A.

High groundwater was observed on Location 4D, and groundwater may be encountered during excavation activities. If construction is conducted during the wet season, groundwater pumping may be required and pumped waters would be treated and/or detained in accordance with NPDES permit requirements.

### **3.6.2.5 LOCATION 4E**

#### **Surface Water**

No direct connections to off-site surface waters were observed within Location 4E. The lack of a direct connection limits the potential for development to directly impact surface waters, although the development of a stormwater system during construction could create new off-site connections. Therefore, it is expected that impacts to water quality and the stormwater runoff/retention regime as well as associated mitigation measures under Location 4E would be similar to the impacts and mitigation measures described above for Location 4A.

#### **Groundwater**

Impacts to groundwater and mitigation measures are expected to be similar to the impacts described above for Location 4A.

Although high groundwater was not observed on Location 4E, groundwater may be encountered during excavation activities. If construction is conducted during the wet season, groundwater pumping may be required and pumped waters would be treated and/or detained in accordance with NPDES permit requirements.

### **3.6.2.6 NO ACTION**

Under the No Action Alternative, location conditions would remain the same and there would be no potential impacts to surface or groundwater.

## 3.7 Wildlife and Habitat

*Wildlife and Habitat* refers to the presence of flora and fauna, protected species and exotic/invasive species that may occur at the location or surrounding area, as well as the potential removal of trees and vegetation from the location.

A review of land cover and wetlands data and aerial photographs for the proposed project location forms the basis of the discussion presented below. The protected species lists are based on a records search of the U.S. Fish and Wildlife Service (USFWS) county list for Lane County, Oregon (USFWS 2012).

The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through an analysis of acres of surface disturbance by habitat type, as well as analysis of potential for special-status species to occur in the project area.

### 3.7.1 Existing Conditions

#### 3.7.1.1 VEGETATION

The five potential locations are located in the 30,554-acre Upper Willamette River–Spring Creek subwatershed. Land cover types were identified and mapped using OR-GAP data (Kiilsgaard 1999). Three land cover types occur in the Upper Willamette River–Spring Creek subwatershed (Table 3-2).

**Table 3-2.** Upper Willamette River–Spring Creek Subwatershed Land Cover Types and Acreages

| Land Cover Type and Description   | Acreage |
|---|---------|
| <b>Agriculture:</b> Lands that have been modified for growing crops and/or animal husbandry. Occur throughout Oregon.   | 11,807  |
| <b>Douglas Fir/White Oak Forest:</b> This is a foothills forest land cover type found in the Willamette and western interior valleys of western Oregon. This system occurs as a mosaic cover type with patterns of dominance and codominance between Douglas-fir ( <i>Pseudotsuga menziesii</i> ) and Oregon white oak ( <i>Quercus garryana</i> ). The understory can vary from shrubby to herbaceous. Commonly associated shrubs include poison oak ( <i>Rhus diversiloba</i> ), tall Oregon grape ( <i>Mahonia aquifolium</i> ), snowberry ( <i>Symporicarpos mollis</i> ), trailing blackberry ( <i>Rubus ursinus</i> ), serviceberry ( <i>Amelanchier alnifolia</i> ), and baldhip rose ( <i>Rosa gymnocarpa</i> ). Commonly associated grasses and forbs include cleavers ( <i>Galium aparine</i> ), blue wildrye ( <i>Elymus glaucus</i> ), western iris ( <i>Iris tenax</i> ), bracken ( <i>Pteridium aquilinum</i> ), hairy honeysuckle ( <i>Lonicera hispidula</i> ), and other introduced grasses from adjacent pasturelands. This system occurs as hot, dry forests on the fringe between coniferous forest and valley bottom. It is a moisture-limited system. | 492     |
| <b>Urban:</b> Cities and municipalities identified in the Oregon State Service Center digital urban area coverage.  | 18,255  |

Source. Kiilsgaard (1999).

#### 3.7.1.2 SPECIAL-STATUS SPECIES

The Endangered Species Act (ESA) (16 U.S.C. § 1531 et. seq.) of 1973, as amended, was enacted to provide a program for the preservation of endangered and threatened species and to provide protection for the ecosystems upon which these species depend for their survival. All federal agencies are required to implement protection programs for these designated species and to use their authorities to further the purposes of the ESA. Responsibility for the identification of an endangered or threatened species and any potential recovery plans lies with the Secretary of the Interior and the Secretary of Commerce.

A list of federally threatened, endangered and candidate species and species of concern (collectively referred to as *special-status species*) potentially occurring within the Lane County was developed (USFWS 2012). OR-GAP land cover types, National Wetlands Inventory (NWI) and National Hydrography Dataset (NHD) data, and aerial photography were used to assess the potential for special-

status species to occur in the potential CBOC locations. See Table 1 in Appendix B for a full list of special-status species with the potential to occur in Lane County.

Migratory birds receive protection through the Migratory Bird Treaty Act (MBTA), which makes it unlawful to pursue, hunt, take, capture, or kill; attempt to take, capture, or kill; or possess any migratory bird, part, nest, egg or product, manufactured or not (16 U.S.C. §§ 703–712). In addition to the MBTA, bald and golden eagles receive protection through the Bald and Golden Eagle Protection Act which prohibits the “taking” or possession or any commerce of bald or golden eagles, including pursuit, shooting, shooting at, poison, wound, kill, capture, trap, collect, molest, or disturb (16 U.S.C. §§ 668–668d).

### **3.7.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.7.2.1 LOCATION 4A**

Review of aerial imagery indicates that Location 4A is predominantly a cultivated field. Table 3-3 identifies the acreage that would be subject to surface disturbance activities by land cover type, as well as the percentage of that land cover type within the subwatershed.

**Table 3-3. Proposed Disturbance Areas by Land Cover Type**

| Land Cover Type | Maximum Disturbance Area Acreage | Percentage of Land Cover Type within Watershed |
|-----------------|----------------------------------|--|
| Urban           | 13.2                             | 0.072%   |

As shown above, the proposed impact would be to Urban land cover, and would affect less than 1% of the total Urban land cover in the subwatershed. The proposed expansion and development would occur predominantly in existing disturbed areas. Nevertheless, soil disturbance, soil and fill transport, and vehicle movements in and out of the location during construction could potentially introduce or move weed seeds and other plant propagules (root and rhizome fragments) to the locations. There is also potential for noxious and invasive plant species to be introduced to adjacent vegetation from the construction area.

To minimize impacts to existing vegetation and reduce the potential for spread of noxious and invasive plant species, the following mitigation measures would be implemented:

- If deemed necessary by VA<sup>1</sup>, surveys for noxious weeds and invasive plant species would be conducted prior to and during construction activities.
- Noxious weeds and invasive plant species would be prevented and controlled by monitoring and treating infestations and by cleaning construction vehicles before bringing them onto the location, as necessary.
- A revegetation and restoration plan would be put into place prior to construction activities and be implemented immediately following disturbance to stabilize soils and prevent the establishment

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<sup>1</sup> Noxious weeds and invasive plant surveys are already completed for some locations. Need for additional surveys and/or monitoring would be determined by VA upon selection of the preferred location.

of noxious weeds and invasive plant species in disturbed soils. Erosion and sedimentation control measures would be used on all slopes above native vegetation (see Section 2.4).

The parking lot would be designed around an Oregon ash that has been identified as significant habitat due to its size and age (Location 4A only). Approximately 13.2 acres of general wildlife, migratory passerine and raptor habitat would be permanently lost in Location 4A, causing the displacement of individual residents to similar habitat in adjacent areas. Feeding, foraging, breeding, and nesting habitat would also be lost. Wildlife, migratory passerine and raptor species that use the habitats in and adjacent to Location 4A are likely habituated to the day-to-day activities of an urban environment. It is likely that once construction operations cease, individuals would move back to and continue to feed, forage, breed and nest in remaining habitat.

Based on individual species' habitat associations, OR-GAP land cover types, NWI and NHD data, and aerial photography, 34 special-status species have the potential to occur in Location 4A (see Appendix B). Of the 34 special-status species, four are listed as endangered (short-tailed albatross, Fender's blue butterfly, Bradshaw's desert parsley, and Willamette daisy), two are listed as threatened (Oregon silverspot butterfly and Kincaid's lupine), three are candidate species (streaked horned lark, North American wolverine, and Oregon spotted frog), and the remaining 25 species are species of concern. Field visits would be necessary to assess suitability of habitat for these species.

Special-status species inhabiting Location 4A and/or surrounding areas would be well-habituated to noise and human presence due to ongoing activities in this urban area. Approximately 13.2 acres of potential special-status species habitat would be permanently lost in Location 4A, causing the displacement of individual special-status species residents to similar habitat in adjacent areas. Feeding, foraging, breeding, and nesting habitat for special-status species would also be lost. Special-status species that use the habitats in and adjacent to Location 4A are likely habituated to the day-to-day activities of an urban environment. It is likely that once construction operations cease, individuals would move back to and continue to feed, forage, breed and nest in remaining habitat.

Based on individual raptor species' habitat associations, OR-GAP land cover types, and aerial photography, it is unlikely that raptors nest in Location 4A. It is possible that raptors may nest in trees within a 0.5-mile buffer around Location 4A, though any raptors nesting in surrounding areas would be well-habituated to noise and human presence due to ongoing activities in this urban area. If field visits confirm raptor nests within a 0.5-mile radius of Location 4A, species-specific disturbance buffers would be established around nests to limit or preclude project-related construction and other activities during the breeding period.

The following mitigation measure would also minimize direct or indirect impacts to wildlife, including migratory birds and raptors, and their habitats:

- If deemed necessary by VA<sup>2</sup>, surveys for special-status species and nesting migratory birds and raptors would be conducted prior to construction activities.

Upon selection of the VA's preferred location, VA would consult with the U.S. Fish and Wildlife Service on any potential impacts to threatened and endangered species affected by the project. Any impacts would be mitigated as a result of this consultation process.

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2 Wildlife surveys are already completed for some locations. Need for additional surveys would be determined by VA upon selection of the preferred location.

### **3.7.2.2 LOCATION 4B**

Review of aerial imagery indicates that Location 4B is predominantly a cultivated field. Table 3-4 identifies the maximum acreage that could be subject to any surface disturbance activities by land cover type, as well as the percentage of that land cover type within the subwatershed.

**Table 3-4. Proposed Disturbance Areas by Land Cover Type**

| Land Cover Type | Maximum Disturbance Area Acreage | Percentage of Land Cover Type within Watershed |
|-----------------|----------------------------------|--|
| Urban           | 12.7                             | 0.070%   |

Up to 12.7 acres of wildlife, migratory passerine and raptor habitat, and vegetation would be permanently lost in Location 4B. Impacts and mitigation for wildlife; migratory passerine, raptor and special-status species; and vegetation and noxious weeds would be the same as for Location 4A.

### **3.7.2.3 LOCATION 4C**

Review of aerial imagery, indicates that Location 4C is predominantly a sparsely vegetated field. Impacts and mitigation for vegetation and noxious and invasive weeds at Location 4C would be the same as Location 4A (see Table 3-3).

Impacts and mitigation for general wildlife, migratory passerine, and raptor habitat would largely be the same as Location 4A, but because Location 4C is bounded by developed parcels of land, it is unlikely that all displaced individual residents would be able to find similar habitat in adjacent areas.

Based on individual species' habitat associations, OR-GAP land cover types, NWI and NHD data, and aerial photography, 44 special-status species have the potential to occur in Location 4C (see Appendix B for list). Of these 44 species, four are listed as endangered (short-tailed albatross, Fender's blue butterfly, Bradshaw's desert parsley, and Willamette daisy), four are listed as threatened (bull trout, Oregon chub, and Kincaid's lupine), three are candidate species (streaked horned lark, North American wolverine, and Oregon spotted frog), and the remaining 33 species are species of concern. Field visits would be necessary to assess suitability of habitat for these species. Due to limited availability of similar habitat in adjacent areas, it is unlikely that all displaced individuals would be able to relocate to adjacent areas for feeding, foraging, breeding, and nesting. Upon selection of the VA's preferred location, VA would consult with the U.S. Fish and Wildlife Service on any potential impacts to threatened and endangered species affected by the project. Any impacts would be mitigated as a result of this consultation process.

### **3.7.2.4 LOCATION 4D**

Review of aerial imagery indicates that Location 4D is predominantly a cultivated field.

Impacts and mitigation for vegetation, noxious and invasive weeds, wildlife, migratory birds, and raptors would be the same as for Location 4A (see Table 3-3). Impacts to special-status species at Location 4D would be the same as for Location 4C, with the exception that there would be adjacent undeveloped space for displaced species to relocate for feeding, foraging, breeding, and nesting activities.

### **3.7.2.5 LOCATION 4E**

Review of aerial imagery indicates that Location 4E is predominantly planted trees (possibly ornamental) and cultivated field. Table 3-5 identifies the maximum acreage that could be subject to any surface

disturbance activities by land cover type, as well as the percentage of that land cover type within the subwatershed.

**Table 3-5.** Proposed Disturbance Areas by Land Cover Type

| Land Cover Type | Maximum Disturbance Area Acreage | Percentage of Land Cover Type within Watershed |
|-----------------|----------------------------------|--|
| Agriculture     | 9.5                              | 0.081%   |
| Urban           | 0.2                              | 0.001%   |

Impacts and mitigation for vegetation and noxious and invasive weeds at Location 4E would be the same as Location 4A.

Approximately 9.7 acres of habitat for wildlife, migratory passerines, and raptors would be permanently lost in Location 4E. Impacts to, and mitigation for, these habitats would largely be the same as for Location 4A, but because Location 4E is bounded by developed parcels of land, it is unlikely that all displaced individual residents would be able to find similar habitat in adjacent areas.

Based on individual species' habitat associations, OR-GAP landcover types, NWI and NHD data, and aerial photography, 31 special-status species have the potential to occur in Location 4E (see Appendix B). Of the 31 special-status species with the potential to occur in Location 4A, four are listed as endangered (short-tailed albatross, Fender's blue butterfly, Bradshaw's desert parsley, and Willamette daisy), two are listed as threatened (Oregon silverspot butterfly and Kincaid's lupine), two are candidate species (streaked horned lark and North American wolverine), and the remaining 23 species are species of concern. However, a biological survey encompassing Location 4E was conducted for the RiverBend Master Plan in 2002 (David Evans and Associates, Inc. 2003) only found bull trout and Chinook salmon on-site. Oregon chub and bald eagles could be present but have not been documented as occurring in the project area. Any raptors nesting in Location 4E or within a 0.5-mile radius would be well-habituated to noise and human presence due to ongoing activities in this urban area. If field visits confirm raptor nests in Location 4E and/or within a 0.5-mile radius of the Location, species-specific disturbance buffers would be established around nests to limit or preclude project-related construction and other activities during the breeding period.

Additionally, upon selection of the VA's preferred location, VA would consult with the U.S. Fish and Wildlife Service on any potential impacts to threatened and endangered species affected by the project. Any impacts would be mitigated as a result of this consultation process.

### **3.7.2.6 NO ACTION**

Under the No Action Alternative, there would be no impacts to habitats or wildlife beyond current maintenance and operations activities associated with the existing land uses.

## **3.8 Noise**

*Noise* is defined as unwanted sound that disrupts or interferes with normal activities, or that diminishes the quality of the environment. Noise is usually caused by human activity and is added to the natural, or ambient, acoustic setting of an area. Exposure to high levels of noise over an extended period can cause health hazards such as hearing loss; however, the most common human response to environmental noise is annoyance. Individuals respond to similar noise events differently based on various factors that may include the existing background level, noise character, level fluctuation, time of day, perceived

importance of the noise, appropriateness of the setting, and sensitivity of the individual. Land uses such as housing and religious, educational, and medical facilities are more sensitive to increased noise levels than are commercial and industrial land uses.

The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through analysis of noise levels from proposed construction or operations on the property as measured against current noise levels in the area.

### **3.8.1 Existing Environment**

The project area is located within a highly developed urban area near major transportation routes. The largest contributor to ambient noise levels in the vicinity is the high speed and high traffic volume experienced on Interstate 5 and to a lesser extent Highway 569 (Randy Pape Beltline). In addition, other sources of existing noise are produced from traffic on major city streets, trains, and aircraft typical of other similar mixed use residential and commercial areas. Normal traffic is estimated to be about 70 to 90 dB, depending on speed, volume and other factors.

In general, noise sensitive land uses are quiet, except those near major roadways, airports, or industrial areas. Noise-sensitive areas within the vicinity of the project area include residential dwellings, medical facilities, schools, libraries, nursing homes, and places of religion. The current CBOC location and all potential locations are located such that at least one noise-sensitive area occurs or would occur within 1 mile of construction and operation activities. Eugene and Springfield city ordinances limit noises caused by construction activities from occurring between the hours of 6:00 PM and 7:00 AM.

Potential noise effects of the project on adjacent areas can be separated into short- and long-term impacts. Short-term impacts result from noise generated by equipment during the construction phase. Long-term impacts would be associated with future project-related traffic noise and noise generated by general operations of the facility.

### **3.8.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.8.2.1 LOCATION 4A**

During construction, there would be temporary increases to noise from construction activities. Noise levels associated with heavy equipment such as backhoes and earth movers are estimated at about 80 to 90 dB at the source, which is similar to the noise of adjacent traffic and existing operations. Impacts would be minimized by limiting construction to nighttime and nonbusiness hours. Noise impacts would be typical of those experienced in the vicinity of construction areas, would be temporary, and would end when construction is complete.

Based on the similarity of function and location for the new outpatient clinic and other adjacent land uses, implementation of the Proposed Action at Location 4A would not result in a long-term change in noise levels. Construction of the new facility would increase new traffic to the area but would not be expected to contribute more than already present ambient sound. The project would comply with all State, County, and City noise codes or ordinances during construction and operation.

#### **3.8.2.2 LOCATION 4B**

Environmental consequences and mitigation measures of Location 4B would be the same as under Location 4A.

### **3.8.2.3 LOCATION 4C**

Environmental consequences and mitigation measures of Location 4C would be the same as under Location 4A.

### **3.8.2.4 LOCATION 4D**

Environmental consequences and mitigation measures of Location 4D would be the same as under Location 4A.

### **3.8.2.5 LOCATION 4E**

Environmental consequences and mitigation measures of Location 4E would be the same as under Location 4A. A noise study conducted by Bruck Richards Chaudiere Inc. (2003) confirmed that construction noise would be in compliance with state and city noise limits for this location.

### **3.8.2.6 NO ACTION**

Under the No Action Alternative, there would be no additional noise impacts in the area. Impacts would remain the same as those present at the current facility and undeveloped lease properties.

## **3.9 Land Use and Real Property**

*Land use* represents the current and planned use of the property in a jurisdiction by the governing authorities. *Real property* refers to the tax rolls or land value.

The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through analysis of changes to surrounding land use or incompatibility with designated land use, reduction of land on the tax rolls, or a reduction in land value.

### **3.9.1 Existing Conditions**

The project area lies within the cities of Eugene and Springfield. The communities are characterized by small-lot residential development and commercial, industrial and agricultural use. The median home cost in Eugene is \$251,100; for Springfield the median home cost is \$181,000 (U.S. Census Bureau 2010).

The Eugene-Springfield Metropolitan Area General Plan has identified the land encompassing the potential CBOC locations as mixed use areas or low density residential/commercial zones (Eugene, Springfield, and Lane County 2010). These zones permit commercial and government building construction. All potential CBOC locations are owned by private entities.

### **3.9.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.9.2.1 LOCATION 4A**

Under Location 4A, there would be no adverse impacts to surrounding property use or real property. Construction of a CBOC at Location 4A would be in keeping with existing uses in the area, and therefore would not cause changes to building property values. The proposed use would also be compatible with zoning for the location. Location 4A is in a designated I-1 Campus Industrial Zone, which the City of

Eugene has deemed appropriate for government services. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.9.2.2 LOCATION 4B**

Impacts to land use and real property under Location 4B are expected to be similar to the impacts described above for Location 4A. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.9.2.3 LOCATION 4C**

Impacts to land use and real property under Location 4C are expected to be similar to the impacts described above for Location 4A. Location 4C is in a Springfield-designated Medium Density Residential/Mixed Use Commercial/Campus Industrial Zone, which is compatible with the proposed CBOC. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.9.2.4 LOCATION 4D**

Impacts to land use and real property under Location 4D are expected to be similar to the impacts described above for Location 4A. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.9.2.5 LOCATION 4E**

Impacts to land use and real property under Location 4D are expected to be similar to the impacts described above for Location 4A. Location 4E is in a designated Springfield Neighborhood Commercial/Medium Density Residential Zone, which is compatible with the proposed CBOC. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.9.2.6 NO ACTION**

Under the No Action Alternative, there would be no impacts to land use, property values, and zoning compliance.

## **3.10 Floodplains, Wetlands, and Coastal Zone Management Areas**

Executive Order 11988 and the floodplain management criteria contained in 44 C.F.R. § 60, Criteria for Land Management and Use, requires that long-term and short-term adverse impacts associated with occupancy and modification of floodplains be avoided to the extent possible. Floodplains are those areas that have been delineated by the Federal Emergency Management Agency (FEMA) and identified on the Flood Insurance Rate Maps (FIRM), as occurring in either the 100-year and/or 500-year floodplain.

Jurisdictional waters of the United States, including streams and wetlands, are defined by 33 C.F.R. § 328.3 and are protected by Section 404 of the Clean Water Act (33 U.S.C. § 1344), which is administered and enforced by the U.S. Army Corps of Engineers (USACE). The 1987 *USACE Wetlands Delineation Manual* defines wetlands as “areas inundated or saturated by surface or ground water at a frequency and duration sufficient to support, and that under normal circumstances do support, a prevalence of vegetation typically adapted for life in saturated soil conditions” (USACE 1987). This definition supports the three criteria that must be met for a determination of jurisdictional wetlands according to the USACE: (1)

wetland hydrology (subject to inundation or saturation near the surface for a period during the growing season), (2) hydrophytic vegetation (vegetation cover dominated by plants adapted to wet conditions), and (3) hydric soils (soils with characteristics that developed due to saturated conditions). All three criteria must be present for an area to be classified as a jurisdictional wetland.

The magnitude and severity of potential impacts from the Proposed Action and No Action alternatives are measured through analysis of acres of surface disturbance that are within the floodplain or wetland habitat. There are no coastal zone management areas (CZMAs) within the five locations.

### **3.10.1 Existing Conditions**

Flood zone data as defined by the FIRMs produced by FEMA indicate that the Locations 4A, 4B, 4C, and 4D are not within FEMA's 100-year or 500-year flood zones (FEMA 1999). A portion of Location 4E is mapped on the FEMA FIRM panel 41039C1134F as occurring within a Zone X flood zone (FEMA 1999). Zone X flood zones correspond to areas within the 500-year flood zone and areas within the 100-year flood zone with average depths of less than 1 foot.

A formal wetland delineation of the project area has not been performed for the purposes of this EA. Background research was conducted April 11, 2012, for the potential CBOC locations and included a review of NWI data (USFWS 1975, 1994), the City of Eugene Local Wetlands Inventory (Pacific Habitat Services 2005) and City of Springfield Local Wetland Inventory (David Evans and Associates 1998), NRCS soil survey (NRCS 2005), USGS topographic maps (USGS 1967a, 1967b), recent aerial photographs (GoogleEarth 2012), and previous wetland delineation work publicly available from the Oregon Department of State Lands (DSL).

The prevalence of wetland characteristics, including indicators of wetland hydrology, hydric soils, and predominance of wetland vegetation, was observed during the wetland reconnaissance site visit conducted by SWCA on April 12, 2012. Wetland areas were observed within Locations 4A, 4C, and 4D and a potentially jurisdictional upland ditch was observed within location 4B. All wetland area calculations are approximate and have been inferred from previous wetland delineation work publicly available from the DSL and/or on-site observations during the wetlands reconnaissance visit preformed by SWCA. Location 4A contains a 0.65-acre wetland area with surface waters (recently constructed for stormwater management) in the southern portion of Location 4A along Beltline Road. Location 4B contains a 600-foot drainage ditch within the western portion of the parcel (Morlan 2000). Location 4C contains a 0.44-acre wetland, associated with a 0.43-acre water of the U.S. located in a drainage ditch that bisects the central portion of the location and occurs along the northeastern and southwestern property boundaries. Location 4C also contains three additional wetland areas totaling 0.71 acre and 1,100 linear feet of stream within the northern portion of the location (Satre Associates 2006). Location 4D contains a 0.16-acre wetland area in the southwestern portion of the Location (Morlan 2000). Based on previous wetland delineation reports publicly available from DSL, the majority of the wetlands would likely be determined to be jurisdictional by DSL and may also be under the jurisdiction of the USACE. A formal jurisdictional determination request has not yet been made for the purposes of this EA.

### **3.10.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.10.2.1 LOCATION 4A**

Dependent upon site design, development within Location 4A has the potential to directly impact approximately 0.65 acre of potentially jurisdictional wetland area. Based on a review of aerial photographs it appears that this wetland area was constructed within the past 10 years for stormwater

management, and according to the site survey this area has been placed within a protective easement thereby limiting potential development activity within the area (VA 2012a). Due to the presence of this easement, it is unlikely that direct impacts to the wetland area, such as filling the wetland area, would be allowed during site development. Indirect impacts would potentially include increased erosion or sedimentation from construction and development activities above the wetland area and hydrologic modifications in timing and frequency of runoff due to adjacent development. Best management practices in Section 2.4 include the use of erosion control buffers to prevent erosion and sedimentation into these areas during construction activities. Post-construction hydrologic modifications would be mitigated through the use of stormwater detention and treatment facilities. These measures would further minimize or eliminate the potential for any such impacts. As a result, it is expected that there would be no project-related impacts to any wetlands associated with the Location 4A development if the protective easement is maintained.

Development of Location 4A would not occur within FEMA-mapped 100-year or 500-year flood zones.

### **3.10.2.2 LOCATION 4B**

Dependent upon site design, development within Location 4B has the potential to directly impact approximately 600 linear feet of potentially jurisdictional upland drainage ditch. A wetland delineation was conducted in 1999 and 0.28 acres of wetland were determined to be present on and adjacent to the site and regulated by DSL at that time. A permit allowing for 0.28 acres of wetland fill was subsequently obtained from DSL associated with the onsite delineated wetlands and adjacent development. The 1999 wetland delineation also documented a potentially jurisdictional upland drainage ditch within the western portion of the site. During the wetland reconnaissance site visit conducted by SWCA on April 12, 2012 the previously delineated wetland areas and upland drainage ditch were observed and determined not to be wetlands. Since no wetland areas were observed onsite it is not expected that the development of the site would result in direct wetland impacts. Due to a culvert connection of the upland ditch to wetland 4A indirect impacts and their associated mitigation measures are similar to Location 4A. Impacts to the potentially jurisdictional upland drainage ditch may require DSL or Corps of Engineers permitting and associated compensatory mitigation. Upon selection of VA's preferred location, a formal wetland delineation would be conducted and permitting or mitigation requirements would be determined at that time.

Development of Location 4B would not occur within FEMA-mapped 100-year or 500-year flood zones.

### **3.10.2.3 LOCATION 4C**

Dependent upon site design, development within Location 4C has the potential to directly impact approximately 1.58 acres of potentially jurisdictional wetlands and waters. A wetland delineation was conducted in 2007, and 1.15 acres of jurisdictional wetland, 0.43 acre of jurisdictional waters of the U.S., and an additional 1,100 linear feet of jurisdictional waters were determined to be present and regulated by DSL at that time (Satre Associates 2006). The delineation received DSL concurrence, which is valid for a period of five years and is therefore set to expire in August 2012. Due to the large size of the parcel (100 acres) in comparison with the size of the proposed development, it is possible that direct avoidance of wetlands and waters could occur. However, given the uncertainty of the development plan, up to 1.58 acres of jurisdictional wetlands and 0.43 acre and 1,100 linear feet of jurisdictional waters could be directly impacted by the Proposed Action under Location 4C. Indirect impacts and their associated mitigation measures would be similar to Location 4A. Wetland mitigation for impacts to on-site wetlands would be required for DSL or USACE jurisdictional wetlands to provide no net loss of wetland functions or values. Upon selection of VA's preferred location, a formal wetland delineation would be conducted and permitting or mitigation requirements would be determined at that time.

Development of Location 4C would not occur within FEMA-mapped 100-year or 500-year flood zones.

#### **3.10.2.4 LOCATION 4D**

Dependent upon site design, development within Location 4D has the potential to directly impact approximately 0.16 acre of potentially jurisdictional wetland area. A wetland delineation was conducted in 1999, and 0.16 acre of wetland were determined to be present and regulated by DSL at that time (Morlan 2000). However, due to recent construction within the adjacent parcel, associated wetland fill permits, and modifications to site hydrology, the actual wetland area within the location may differ from this originally delineated acreage. Due to the location of the wetland area within Location 4D and the size of the planned development, it is unlikely that direct impacts to the wetland area could be avoided. As a result, there would likely be direct impacts of approximately 0.16 acre to wetlands associated with the Location 4D development. Indirect impacts and their associated mitigation measures would be similar to Location 4A. Wetland mitigation for impacts to on-site wetlands would be required for DSL or USACE jurisdictional wetlands to provide no net loss of wetland functions or values. Upon selection of VA's preferred location, a formal wetland delineation would be conducted and permitting or mitigation requirements would be determined at that time.

Development of Location 4D would not occur within FEMA-mapped 100-year or 500-year flood zones.

#### **3.10.2.5 LOCATION 4E**

No wetlands or waters have been previously delineated on Location 4E, and wetlands were not observed on-site during the wetland reconnaissance on April 12, 2012. Indirect impacts to off-site wetlands and waters would be mitigated for through the usage of erosion and sediment control BMPs and stormwater management, similar to Location 4A.

A portion of Location 4E is mapped on the FEMA FIRM panel 41039C1134F as occurring within a Zone X flood zone (FEMA 1999). Zone X flood zones correspond to areas within the 500-year flood zone and areas within the 100-year flood zone with average depths of less than 1 foot. Due to the limited size of the parcel and extent of FEMA mapping on the parcel, development of Location 4E would occur within the FEMA flood zone.

#### **3.10.2.6 NO ACTION**

Under the No Action Alternative, there would be no new impacts to wetlands or floodplains.

### **3.11 Socioeconomics**

Socioeconomics analysis evaluates the effect that the Proposed Action would have on the social and economic conditions in the surrounding area.

The magnitude and severity of potential impacts from the Proposed Action and No Action Alternative are measured through analysis of changes to employment opportunities, changes to the income received by the City or County though changes to taxes and changes to the neighborhood population or alteration of demographic characteristics.

#### **3.11.1 Existing Conditions**

The project area is located in the cities of Eugene and Springfield. The current population of Eugene is approximately 156,185, an 11% increase over the population in 2000 (U.S. Census Bureau 2010). Eugene

is home to the University of Oregon which has an enrollment of over 24,000 undergraduate and postgraduate students (University of Oregon 2011). Top industries for Eugene residents are educational services and health care and social assistance; retail trade; and professional and scientific management, administration, and waste management services. The unemployment rate in Eugene is 8.2% (U.S. Census Bureau 2010). According to 2010 census data, Eugene has a median family income of \$58,941. According to U.S. census data from 2010, the demographics of Eugene's residents are as follows: 85.8% white, 1.4% black or African-American, 1% American Indian or Alaska Native, 4% Asian, 0.2% Native Hawaiian and Other Pacific Islander, 2.9% some other race, and 4.7% two or more races (U.S. Census Bureau 2010).

The current population of Springfield is 59,403 (U.S. Census Bureau 2010). Top industries for Springfield residents include educational services and health care and social assistance; retail trade; and manufacturing. According to 2010 census data, Springfield has a median family income of \$42,721, and the demographics of Springfield's residents are as follows: 85.9% white, 1.1% black or African-American, 1.4% American Indian or Alaska Native, 1.3% Asian, 0.3% Pacific Islander, 5.2% some other race, and 4.8% two or more races (U.S. Census Bureau 2010).

### ***3.11.2 Environmental Consequences and Proposed Mitigation Measures***

#### **3.11.2.1 LOCATION 4A**

Under Location 4A, temporary construction jobs would be created during the construction phase of the project, and local supply purchases would add to the local economy. When the CBOC is operational, the full-time staff is anticipated to consist of 193 employees, a portion of which would likely transfer from the old CBOC, resulting in a slight increase in medical employment in the Eugene area. Because the location would still be owned by the federal government, no property taxes would be paid to Lane County (the federal government is exempt from paying local and state taxes). Location 4A is in keeping with existing uses in the area and would be unlikely to cause changes to neighborhood or demographic characteristics in the area. No mitigation measures are required to reduce impacts to less than significant levels.

#### **3.11.2.2 LOCATION 4B**

Project impacts and mitigation measures are expected to be the same for Location 4B as for Location 4A.

#### **3.11.2.3 LOCATION 4C**

Project impacts and mitigation measures are expected to be the same for Location 4C as for Location 4A.

#### **3.11.2.4 LOCATION 4D**

Project impacts and mitigation measures are expected to be the same for Location 4D as for Location 4A.

#### **3.11.2.5 LOCATION 4E**

Project impacts and mitigation measures are expected to be the same for Location 4E as for Location 4A.

### **3.11.2.6 NO ACTION**

Under the No Action Alternative, clinic workload and enrollment would increase at the existing CBOC but there would be no change to economic activity, taxes, or demographic characteristics in the area.

## **3.12 Community Services**

This section describes the existing community services (e.g., law enforcement, emergency response) and anticipated impacts to those services as a result of construction and operation of the project. Magnitude and severity of potential impacts are measured by increases demand as measured against current level of service that existing infrastructure and workforce resources could support.

### **3.12.1 Existing Conditions**

The project area is located within the Cities of Eugene and Springfield and is served by the cities' programs. The Cities of Eugene and Springfield provide law enforcement and emergency response services to the location. The recently merged Eugene/Springfield Fire, Safety, and EMS also service the area.

### **3.12.2 Environmental Consequences and Proposed Mitigation Measures**

#### **3.12.2.1 LOCATION 4A**

Location 4A would not cause any significant population changes to the City of Eugene. The number of employees associated with the relocation of the CBOC would increase slightly to accommodate a higher clinic workload and enrollment, but would not be expected to result in any increased demands for fire, police, and emergency medical services. There would be no impacts to schools or recreational services. No mitigation measures are required to reduce impacts to less than significant levels.

#### **3.12.2.2 LOCATION 4B**

Project impacts and mitigation measures are expected to be the same for Location 4B as for Location 4A.

#### **3.12.2.3 LOCATION 4C**

Project impacts and mitigation measures are expected to be the same for Location 4C as for Location 4A.

#### **3.12.2.4 LOCATION 4D**

Project impacts and mitigation measures are expected to be the same for Location 4D as for Location 4A.

#### **3.12.2.5 LOCATION 4E**

Project impacts and mitigation measures are expected to be the same for Location 4E as for Location 4A.

#### **3.12.2.6 NO ACTION**

Under the No Action Alternative, fire, police, and emergency medical services would still be required to provide services to the existing CBOC.

## 3.13 Solid Waste and Hazardous Materials

This section discusses management of solid waste and hazardous waste in compliance with local, state, and federal regulations. *Hazardous materials* are defined as any material that, because of its quantity, concentration, or physical or chemical characteristics, may pose a real hazard to human health or the environment. Hazardous materials include flammable or combustible material, toxic material, corrosive material, oxidizers, aerosols, and compressed gases. Management of hazardous materials, substances, and waste (including storage, transportation, and spills) is conducted in compliance with 29 C.F.R. § 1910, 49 C.F.R. § 100–185, 40 C.F.R. § 100–400, Comprehensive Environmental Response Compensation and Liability Act (CERCLA), RCRA, Superfund Amendment Reauthorization Act, Toxic Substances Control Act, Clean Water Act, and other federal and state regulations and policies regarding hazardous materials management.

*Recognized environmental conditions* (RECs), for the purpose of the CERCLA Superfund Amendments and Reauthorization Act of 1986 are defined by the American Society for Testing and Materials (ASTM) as “the presence or likely presence of any hazardous substance or petroleum products on a property under conditions that indicate an existing release, a past release, or a material threat of a release of any hazardous substances or petroleum products into structures on the property or into the ground, ground water, or surface water of the property” (ASTM 2005). *Historical recognized environmental conditions* (HRECs) are defined by ASTM as an environmental condition which in the past would have been considered a recognized environmental condition, but which may or may not be considered a recognized environmental condition currently (ASTM 2005). *Environmental issues* include environmental concerns that warrant discussion but do not qualify as recognized environmental conditions, as defined by the ASTM (2005).

Magnitude and severity of potential impacts from RECs, HRECs, and environmental issues are measured through analysis of risk of exposure as identified through a Phase I Environmental Site Assessment, which compiles information from site reconnaissance, historical inquiries, regulatory records review, environmental interviews/questionnaires, and other available data sources to evaluate the environmental conditions.

*Medical waste*, also known as *clinical waste*, normally refers to waste products that cannot be considered general waste, produced from health care premises, such as hospitals, clinics, doctors' offices, veterinary hospitals, and labs. Medical waste is regulated at the state level. Not all medical waste is infectious. Under Oregon law, infectious waste can fall into any of four categories: pathological waste, biological waste, cultures, and stocks, or sharps. There are four state agencies in Oregon that regulate various aspects of the management of infectious waste: ODEQ, Oregon Department of Health Services, Oregon Occupational Safety and Health Administration, and the Oregon Department of Transportation (ODOT).

### 3.13.1 Existing Conditions

#### 3.13.1.1 LOCATION 4A

Location 4A is an open lot with no structures. The location does not include any known RECs or HRECs; however, no formal Phase I Site Assessment has been conducted on this property.

The EPA EnviroMapper database indicates that there are three facilities within 0.25 mile of the project area that are regulated by the EPA to handle materials designated as hazardous waste (EPA 2012a). All are small-quantity hazardous waste generators. No violations or compliance issues have been reported.

A search of the ODEQ underground storage tank (UST) clean-up database (ODEQ 2012c) identifies two active records of leaking USTs within 0.5 mile of the project area, both located on Gateway Street. There are four additional closed records of leaking underground storage tanks located within 0.5 mile of the project area, all located on Gateway Street or International Way (ODEQ 2012c). It is not known if any of these sites are at or above the elevation of the Location 4A and if groundwater contamination would be an issue.

### **3.13.1.2 THERE ARE NO SITES WITHIN 1 MILE OF THE LOCATION 4A ON THE NATIONAL PRIORITY LIST (EPA 2012B). LOCATION 4B**

Location 4B is an open lot with no structures. The location does not include any known RECs or HRECs; however, no formal Phase I Site Assessment has been conducted on this property. Proximity to nearby RECs or HRECs would be the same as under Location 4A.

### **3.13.1.3 LOCATION 4C**

Location 4C is an open lot with one structure. A Phase I Environmental Site Assessment was conducted in 2010 by AEI Consultants (AEI 2010). No on-site RECs were identified Phase I ESA. The investigation revealed one HREC associated with the subject property or nearby properties, a leaking UST that was removed from the subject property in 1990. The UST had a capacity of 1,000 gallons and was used to store gasoline. The ODEQ granted case closure in March 1991 (AEI 2010).

Because the parcel for Location 4C contains a building that is expected to be demolished, the Phase I ESA also surveyed for environmental issues such as asbestos, lead-based paints and mold. AEI sampled the on-site property for asbestos and lead-based paints due to its age. Asbestos was not detected in any of the samples analyzed. Sample analysis did reveal some presence of lead but the levels detected did not indicate the presence of lead-based paint by federal and state definition (paints that exceed 0.5% lead by weight). During the on-site reconnaissance, obvious visual signs of mold growth or conditions conducive for mold growth were observed in water-damaged portions of the interior walls and within the water-damaged portions of the office. Samples were collected from five areas that confirmed that mold was present on-site (AEI 2010).

The Phase I ESA also identified two small quantity hazardous waste generators located within 0.25 miles of Location 4C. No violations or compliance issues were noted in the Phase I ESA (AEI 2010). There are also eight records of leaking USTs within 0.5 mile of Location 4C. Seven are at or the above the elevation of Location 4C (AEI 2010).

### **3.13.1.4 THERE ARE NO SITES WITHIN 1 MILE OF LOCATION 4C ON THE NATIONAL PRIORITY LIST (AEI 2010). LOCATION 4D**

Location 4D is an open lot with no structures. The location does not include any known RECs; however, no formal Phase I Site Assessment has been conducted on this property. Proximity to nearby RECs or HRECs would be the same as under Location 4A.

### **3.13.1.5 LOCATION 4E**

Location 4E is an open lot with no structures. A Phase I Environmental Site Assessment was conducted in 2001 for the RiverBend Master Plan by Omnicron Environmental Management (Omnicron Environmental Management 2001).

The EPA EnviroMapper database identified one small quantity hazardous waste generator within 0.25 mile of the project area. No violations or compliance issues were found (EPA 2012a).

Both leaking UST open records discussed under Location 4A are within approximately 0.5 mile of Location 4E. In addition, there are two other active records, both for residential heating oil tanks leaks (ODEQ 2012c). Most of the closed UST reports identified under Location 4A are also within 0.5 mile of Location 4E. There are two additional closed reports for this location (ODEQ 2012c). It is not known if any of these sites are at or above the elevation of Location 4E or if groundwater contamination would be an issue.

### ***3.13.2 There are no sites within 1 mile of Location 4E that appear on the National Priority List (EPA 2012b). Environmental Consequences and Proposed Mitigation Measure***

#### **3.13.2.1 LOCATION 4A**

Risks associated with hazardous materials consist of (1) exposure to any hazardous materials that already exist on-site, and (2) spills, leaks, or other releases of hazardous materials that would be used, stored, or transported to the project area. A discussion of anticipated hazardous materials to be used, stored, or transported is provided in Chapter 2, along with measures to reduce public health and safety impacts.

There are no known hazardous materials present at the Location 4A and no reported violations or compliance issues related to the three hazardous waste generators located within 0.25 mile of Location 4A. It is not known if any of leaking UST sites are at or above the elevation of Location 4A or if groundwater contamination would be an issue. Risk of exposure to any undetected hazardous materials or contamination would be minimized by conducting a Phase I ESA prior to construction.

#### **3.13.2.2 LOCATION 4B**

Impacts and mitigation would be the same for Location 4B as for Location 4A.

#### **3.13.2.3 LOCATION 4C**

The risk of spills, leaks, or other releases of hazardous materials that would be used, stored, or transported for Location 4C would be the same as for Location 4A. There are no known hazardous materials identified at Location 4C. The Phase I Environmental Site Assessment did observe mold in portions of the structure that would be demolished. However, demolition of structures with minimal amounts of visual mold observed (i.e., less than 10 square feet), such as the subject property, would not be subject to specific demolition requirements (AEI 2010).

The assessment also identified lead as a consistent of the paint used within the building (at levels too low to be considered lead-based). Risk of exposure to lead would be minimized by following lead-safe practices and conducting either a negative exposure air monitoring assessment during demolition, or performing a qualitative risk assessment prior to demolition (AEI 2010).

There are no reported violations or compliance issues related to the two hazardous waste generators located within 0.25 mile of Location 4C. Based on the relative distance from the parcel, inferred direction of groundwater flow, and/or regulatory status, the identified leaking USTs are not expected to represent a significant environmental concern (AEI 2010).

### **3.13.2.4 LOCATION 4D**

Impacts and mitigation would be the same for Location 4B as for Location 4A.

### **3.13.2.5 LOCATION 4E**

The risk of spills, leaks, or other releases of hazardous materials that would be used, stored, or transported for Location 4E would be the same as for Location 4A. There are no known hazardous materials present at the Location 4E and no reported violations or compliance issues related to the one hazardous waste handler located within 0.25 mile of the project area. A Phase I Environmental Site Assessment (Omnicon Environmental Management 2001) for the RiverBend Master Plan identified the possibility of lead-based paint, asbestos, and underground heating oil tank or farm fuel tank in existing homestead sites on the property. A refuse disposal burn site was also identified; however, none of these hazards are located within Location 4E's boundary. The presence of identified leaking USTs or other off-site hazards are not expected to represent a significant environmental concern (Omnicon Environmental Management 2001). Therefore, no mitigation measures are required to reduce impacts to less than significant levels.

### **3.13.2.6 NO ACTION**

Under the No Action Alternative, there would be no new waste generation or disposal at the five lease locations.

## **3.14 Transportation and Parking**

*Transportation and parking* refers to vehicular traffic and traffic parking patterns. Magnitude and severity of potential impacts would be measured by changes in the area's vehicular traffic or parking related to the project construction and operations.

### **3.14.1 Existing Conditions**

#### **3.14.1.1 LOCATION 4A**

Location 4A is an unimproved lot (see Figure 2-1). The project area is accessed by Chad Avenue. Chad Avenue is classified in the Eugene-Springfield Transportation System Plan (2002 Transportation Plan) as a *major collector*<sup>3</sup> and provides primary access to most of the business located in this area. Access to this portion of Chad Avenue is provided by Old Coburg Road (a major collector located to the east) and N. Coburg Road (a north-south-running *principal arterial*<sup>4</sup> located to the west). Old Coburg Road intersects with N. Game Farm Road, a north-south *minor arterial*<sup>5</sup> providing access to the Randy Pape Beltline (SR

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<sup>3</sup> *Collectors* are streets designed to provide both land access service and traffic circulation within residential neighborhoods, commercial, and industrial areas. The primary function of a collector street is to distribute local trips to the arterial system (Lane Council of Governments 2002).

<sup>4</sup> *Principal arterials* are streets that serve the major centers of activity of a metropolitan area, the highest traffic volume corridors and the longest trip needs. Principal arterials carry a high proportion of the total urban area travel on a minimum of mileage and provide important intra-urban as well as inter-city bus routes (Lane Council of Governments 2002).

<sup>5</sup> *Minor arterials* include all arterials not classified as principal arterials and offer a lower level of traffic mobility than the higher street classifications. Such facilities may carry local bus routes and provide intra-community continuity, but ideally should not penetrate identifiable neighborhoods (Lane Council of Governments 2002).

569, also known as the Beltline, an east-west-running principal arterial) and U.S. Interstate 5 (I-5). N. Coburg Road also provides access to the Beltline.

Both Chad Drive and Old Coburg Road contain two travel lanes with a center median for access and turning. N. Coburg Road contains four travel lanes with a center median for access and turning. There are stoplights controlling the Old Coburg Road/N. Game Farm Road and Chad Avenue/N. Coburg Road intersections. There is also one stoplight on Chad Avenue between the project area and N. Coburg Road. There are no traffic counts or level of service (LOS) data available for Chad Avenue, Old Coburg Road, N. Coburg Road, or N. Game Farm Road.

These roads can be accessed from other parts of the city via the Beltline or by I-5. Both highways can be accessed within minutes of the project area. The 2010 average annual daily traffic (AADT) on the Beltline near the project area was approximately 52,000 vehicles per day (ODOT 2010). The 2010 AADT on I-5 near the project area was approximately 66,400 vehicles per day (ODOT 2010).

There is one bus stop located near Location 4A (on Chad Avenue), with scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours. There is an EmX (bus rapid transit system) station located approximately 0.5 mile east of Location 4A (LTD 2011). It is unknown how many riders use these routes, but in October 2011, boardings across the entire LTD system averaged 51 per business hour and in general, LTD's ridership is dominated by commute-level riders (LTD 2012). Location 4A is within a designated nodal development area; these areas were designated by the City of Eugene to support increased use of alternative modes of transportation (Lane Council of Governments 2002).

### **3.14.1.2 LOCATION 4B**

Location 4B is an unimproved lot located directly across Chad Avenue from Location 4A (see Figure 2-1). The project area is currently accessed by an entryway located on Chad Avenue. Vehicular and transit access would be the same for Location 4B as for Location 4A.

### **3.14.1.3 LOCATION 4C**

Location 4C is an open lot containing one small building (see Figure 2-2). The project area is currently accessed by an entryway located on Marcola Avenue (to the south). Access to this portion of Marcola Street is provided by 19th Street (to the east) and 31st Street (to the west), at intersections controlled by stoplights. There are no traffic count or LOS data available for Marcola Avenue, 31st Street, or 19th Street; however, all are classified as major collector roads for the area (Lane Council of Governments 2002). All three streets contain two travel lanes with a center lane for access and turning. There is an at-grade railroad crossing on Marcola Road, just east of the intersection with 31st Street, providing rail access to the Armory. The crossing is marked by signage and lights.

These roads can be accessed from other parts of the city via SR 126, which is located about a block to the south. SR 126 is classified as a major arterial. The 2010 AADT on SR 126 near Location 4C was approximately 42,300 vehicles per day (ODOT 2010). The access point to SR 126 is located on 19th Street (now renamed Mohawk Boulevard) one block south of the intersection with Marcola Road. Access is controlled by a stoplight.

There is a bus transit stop located on Marcola Avenue near 19th Avenue with scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours (LTD 2011). The project area is located within a designated nodal development area (Lane Council of Governments 2002).

### **3.14.1.4 LOCATION 4D**

Location 4D is an open lot with no access points, located two lots to the east of Location 4B (see Figure 2-1). Vehicular and transit access would be the same for Location 4D as for Location 4A.

### **3.14.1.5 LOCATION 4E**

Location 4E comprises portions of a wedge-shaped lot bisected by a road (see Figure 2-3). The project area is accessed by Cardinal Way (which bisects the project area), Martin Luther King Jr. Parkway (to the east), and S. Game Farm Road (to the west).

Cardinal Way provides access to the both portions of the project area as well as providing access to the Sacred Heart Medical Center at RiverBend, one of the largest medical centers in the northwest (Eugene Chamber of Commerce 2012). It has one lane of traffic in each direction, fully separated by a decorative median. Cardinal Way also crosses S. Game Farm Road to enter the residential area to the west as a smaller two-lane, nondivided road. There are stops signs for S. Game Farm Road traffic only at this intersection. Martin Luther King Jr. Parkway, constructed in 2006 as an arterial connection from the Beltline Road to SR 126, provides two lanes of traffic in each direction, separated by a wide median. The parkway provides primary access to the Sacred Heart Medical Center at RiverBend. There are turns lanes on the parkway to provide entry to Riverbend Drive (the medical center's access road) but no traffic controls. There is a stoplight at the intersection of Martin Luther King Jr. Parkway and Cardinal Way. S. Game Farm Road, a designated major collector, contains two travel lanes with no median and provides access only to the south. There are no traffic count or LOS data available for Cardinal Way, Martin Luther King Jr. Parkway, or S. Game Farm Road.

These roads can be accessed from other parts of the city via the Beltline, I-5, or by SR 126. The Beltline and I-5 are located within blocks of the project area. The 2010 AADT on the Beltline near the project area was approximately 26,700 vehicles per day (ODOT 2010). The 2010 AADT on the I-5 near the project area was approximately 66,400 vehicles per day (ODOT 2010). SR 126 is located approximately 1.2 miles south of the project area and is accessed by Martin Luther King Jr. Parkway (via Pioneer Parkway). The 2010 AADT on SR 126 near where traffic would enter the highway was 60,900 vehicles per day (ODOT 2010).

Martin Luther King Jr. Parkway and Riverbend Drive are located along the EmX route. There are stops located on both roads, near Location 4E, with scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours (LTD 2011). Location 4E is located within a designated nodal development area (Lane Council of Governments 2002).

## **3.14.2 Environmental Consequences and Proposed Mitigation Measures**

### **3.14.2.1 LOCATION 4A**

#### **Vehicular Travel**

Under the Alternative 4A, there would be 193 full-time employees, plus potential part-time staff, patients, and visitors. Based on staff and visitor parking, there could be up to 686 vehicles entering and leaving the facility per day. Assuming maximum capacity and one trip in and out of the facility, this would result in a maximum of 1,372 vehicle trips per day. Vehicle ingress-egress would occur from separate staff and visitor entrances located on Chad Avenue. The balance of the travel would come from patients and visitors and could occur throughout the day. The portion of this travel attributable to full-time staff would

comprise 386 trips per day (193 vehicles). As an outpatient facility, it is assumed that the clinic would generally operate from 8:00 AM to 5:00 PM, five days per week. Therefore, staff travel would primarily occur during typical morning and evening commute times. Additional staff commute during these times could come from part-time employees; part-time or temporary staffing information is not available.

Chad Avenue, as a collector, is designed to provide traffic circulation within residential neighborhoods, commercial, and industrial areas and to distribute local trips to the arterial system. This proposed use of Chad Avenue is appropriate for its designation; however, the addition of 193 vehicles during morning and evening commutes could result in traffic backups at CBOC entrance during entry and exit. Use of the center median on Chad Avenue would assist in providing road entrance and exit without backing up through traffic. The addition of 193 vehicles during morning and evening commutes may result in longer waits at the three stoplight-controlled intersections near Location 4A. Once traffic proceeds on to N. Game Farm Road (a minor arterial) or N. Coburg Road (a principal arterial), it would likely be readily absorbed into existing traffic and would disperse into several directions.

Assuming that most staff and patients/visitors are not from the immediate area, project traffic would likely access the area via the Beltline, or I-5. Table 3-6 shows highway traffic impacts by location. As shown, traffic would increase by a maximum of 2.6% on the Beltline and 2.1% on I-5. In reality, the increase would be lower, because CBOC-associated traffic using highways would likely be split between these highways, some project traffic would be on surface streets instead of highways, and some percentage of staff, patients, and visitors would use public transportation.

**Table 3-6. Highway Traffic Impacts by Location**

| Location            | Highway Access Routes | 2010 AADT | Project Traffic (ADT) | Total  | Percent increase |
|---------------------|-----------------------|-----------|-----------------------|--------|------------------|
| Location 4A, 4B, 4D | Beltline              | 52,000    | 1,372                 | 53,372 | 2.6%             |
|                     | I-5                   | 66,400    | 1,372                 | 67,772 | 2.1%             |
| Location 4C         | SR 126                | 42,300    | 1,372                 | 43,672 | 3.2%             |
| Location 4E         | Beltline              | 26,700    | 1,372                 | 28,072 | 5.1%             |
|                     | I-5                   | 66,400    | 1,372                 | 67,772 | 2.1%             |
|                     | SR 126                | 60,900    | 1,372                 | 62,272 | 2.3%             |

It is unknown how many miles staff or visitors would travel daily to access the new CBOC. Assuming maximum project traffic (1,372 vehicles trips per day) for 260 days a year, and a continuation of the 2009 Oregon fatality rate (1.11 fatalities per 100 million miles driven) each vehicle trip would have to average 252 miles for project operations to statistically produce one fatality.

## Public Transportation

It is currently unknown how many potential staff or visitors would use the bus or rapid transit system to access the location or how many people are currently using the route. However, given that there is scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours, it is expected that the LTD would be able to accommodate the percentage of the staff or visitors who wish to use public transit system. Additionally, as a designated nodal development area, the location is identified in the 2002 Transportation Plan as one in which increased use of alternative modes of transportation would be supported (Lane Council of Governments 2002).

## **Mitigation**

Impacts from commuting traffic on local access routes could be further reduced by staggering employee arrival and departure times or offering incentives for using public transportation. Changes in the timing of the Chad Avenue stoplights may also assist in regulating traffic flow.

### **3.14.2.2 LOCATION 4B**

Traffic impacts and mitigation would be the same for Location 4B as for Location 4A.

### **3.14.2.3 LOCATION 4C**

#### **Vehicular Travel**

Estimated levels of traffic and risks of traffic fatalities would be the same for Location 4c as for Location 4A, except that there would be an additional traffic risk due to the at-grade rail crossing located on Marcola Road, just east of the 31st Street intersection.

Vehicle ingress-egress to the facility would occur from several entrances. The main entrance to the facility (primarily for patients and visitors) would be from Marcola Road. The facility could also be accessed via a new local street that would provide access into the Village at Marcola Meadows from 31st Avenue. Staff entry and supply delivery would occur via a new collector road to be built within the Village at Marcola Meadows and which could be accessed from either Marcola Road or 31st Street. VA clinic would have separate entrances for staff parking and service and delivery vehicles.

Marcola Road and 31st Street, as major collectors, are designed to provide traffic circulation within residential neighborhoods, commercial, and industrial areas and to distribute local trips to the arterial system. This proposed use of these roads is appropriate for its designation; however, the addition of 193 vehicles during morning and evening commutes could result in traffic backups at the new connector road. Use of the center medians on Marcola Road and 31st Street would assist in providing road entrance and exit without backing up other road traffic. The addition of 193 vehicles during morning and evening commutes could also result in longer waits at the stoplight-controlled intersections of Marcola Road and 19th Street, 31st Street, as well as the entrance to SR 126. The presence of the at-grade rail crossing could also add to traffic delays.

It is anticipated that after exiting the Village at Marcola Meadows, most traffic would exit the area via SR 126. As Table 3-6 shows, traffic would increase by a maximum of 3.2% on SR 126. In reality, the increase would be somewhat lower because some project traffic would remain on surface streets, and some percentage staff and patients would use public transportation.

#### **Public Transportation**

It is currently unknown how many potential staff or visitors would use the bus or rapid transit system to access the location or how many people are currently using the route. However, given that there is scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours, it is expected that the LTD would be able to accommodate staff or visitors who wish to use the system. Additionally, as a designated nodal development area, the location is identified in the 2002 Transportation Plan as one in which increased use of alternative modes of transportation would be supported (Lane Council of Governments 2002). The LTD has also indicated to the developers of the Village at Marcola Meadows that it will work to provide additional service directly onto the location with bus schedules providing service at frequent intervals during the business day (Marcola Meadows 2012).

## **Mitigation**

Impacts from commuting traffic on local access routes could be further reduced by staggering employee arrival and departure times or offering incentives for using public transportation. Changes in the timing of intersection controls at the Marcola Road/19th Street and Marcola Road/31st Street intersections or the installation of new collector road intersection controls may also assist in regulating traffic flow. Installation of a crossing gate at the rail crossing could further reduce traffic risks.

### **3.14.2.4 LOCATION 4D**

Traffic impacts and mitigation would be the same as under Location 4A.

### **3.14.2.5 LOCATION 4E**

#### **Vehicular Travel**

Estimated levels of traffic and risks of traffic fatalities would be the same as under Location 4A. The proposed plans for developing Location 4E place the clinic and approximately 300 of the 685 parking spaces on the portion of the location that is south of Cardinal Way. The remaining 385 parking spaces would be located in two parking lots located north of Cardinal Way.

Vehicle ingress-egress to the clinic and southern parking lots would occur from several entrances. The main entrance to the facility (primarily for patients and visitors) would be from Cardinal Way. The median in Cardinal Way would be reconstructed to allow access from either traffic travelling in either direction. The facility and lots could also be accessed from S. Game Park Road or the parking lot from the exiting medical building located to the south. The entrance to the loading area would be located on Martin Luther King Jr. Parkway.

There would be two parking lots located on the north side of Cardinal Way. One parking lot would have an entrance on Cardinal Way that could be accessed by traffic travelling in either direction; the other would have an entrance on S. Game Farm Road. The two lots would be connected.

Cardinal Way, although not having a road type designation in the 2002 Transportation Plan, was designed to provide traffic circulation around existing and proposed commercial and medical facilities, and convey that traffic (and nearby residential traffic) to the arterial system (i.e., Martin Luther King Jr. Parkway, the Beltline, and SR 126). This proposed use of this road is therefore appropriate. The addition of 193 vehicles during morning and evening commutes could result in traffic delays as commuting traffic enter and exit parking lots on either side of the road. There is no median lane to facilitate lot entry and exit if traffic from nearby residential areas is also attempting to reach nearby arterials. Additionally, visitors or staff using parking lots to the north of Cardinal Way would have to cross Cardinal Way in order to access the clinic. There would be crosswalks at the intersection of Cardinal Way/S. Game Farm Road and Cardinal Way/Martin Luther King Jr. Parkway intersections; however there are currently no stop signs or stoplights at the Cardinal Way/S. Game Farm Road intersection to assist with pedestrian crossings.

It is anticipated that after exiting the medical facility area, most traffic would travel via Martin Luther King Jr. Parkway to the Beltway, I-5 or SR 126. As shown in Table 3-6, traffic would increase by a maximum of 5.1% on the Beltline, 2.1% on I-5, and 2.3% on SR 126. In reality, the increase would be far lower because CBOC traffic using highways would likely be split between the three highways, some project traffic would be on surface streets instead of highways, and some percentage staff and patients would use public transportation.

## **Public Transportation**

It is currently unknown how many potential staff or visitors would use the bus or rapid transit system to access the location or how many people are currently using the route. However, given that there is scheduled service throughout the day, including multiple stops during peak morning and evening commuting hours, it is expected that the LTD would be able to accommodate staff or visitors who wish to use the system. Additionally, as a designated nodal development area, the location is identified in the 2002 Transportation Plan as one in which increased use of alternative modes of transportation would be supported (Lane Council of Governments 2002).

## **Mitigation**

Impacts from commuting traffic and pedestrian crossings on Cardinal Way could be reduced by staggering employee arrival and departure times, offering incentives for using public transportation, or requiring some or all staff to enter parking lots via a Martin Luther King Jr. Parkway-to-S. Game Park Road route. Changes in the timing of intersection controls/timing at the Martin Luther King Parkway/Cardinal Way and Cardinal Way/S. Game Farm Road intersections may also assist in regulating traffic flow during peak traffic periods.

### **3.14.2.6 NO ACTION**

Under the No Action Alternative, the proposed CBOC would not be built. Traffic at all locations would remain at exiting levels, subject to current trends.

## **3.15 Utilities**

*Utilities* refer to water, electricity, natural gas, communication and stormwater/sewage and solid waste disposal.

### **3.15.1 Existing Conditions**

All potential leasing locations would have water, electric and/or natural gas, and sewer service on-site. The Springfield Utility Board is the local utility agency that provides electricity and water service to most of the Springfield area. All new developments within the city of Springfield are also required to connect to the municipal wastewater system. For Eugene, electrical and water supply would likely come from the Eugene Water and Electric Board, and wastewater would be directed to the municipal wastewater system.

### **3.15.2 Consequences and Proposed Mitigation Measures**

#### **3.15.2.1 LOCATION 4A**

Construction of the Eugene CBOC at Location 4A would likely require some existing utility lines to be extended or relocated to support the new facility. During construction activities, existing utilities infrastructure could also inadvertently be damaged or service could be disrupted. The potential for such damage or service disruption during construction would vary based on proposed construction methods and proximity of the proposed linear facility to existing utility systems, but would be greatest during digging or grading activities. Potential for construction impacts would be mitigation through the use of construction controls and prudent construction procedures (e.g., the identification and marking of all existing utility infrastructure in the work areas) to further reduce impacts to existing utilities. Prior to construction, the construction contractor would perform reconnaissance surveys and would record,

delineate, and flag the locations of all utility lines. During construction, controls such as hand digging of trenches in select areas would decrease the potential for construction equipment, particularly trenching equipment, to sever or damage any existing underground lines.

During operations, utility use would increase to accommodate increased visitation and employee use of the new Eugene CBOC for up to 20 years. However, implementation of applicable energy and water efficiency and sustainability mandates in project design, as specified in Executive Order 13423 and the Energy Policy Act of 2005, would significantly reduce on-site energy and water consumption.

### **3.15.2.2 LOCATION 4B**

Under Location 4B, utility impacts and mitigation would be the same as outlined in Location 4A.

### **3.15.2.3 LOCATION 4C**

Under Location 4C, utility impacts and mitigation would be the same as outlined in Location 4A.

### **3.15.2.4 LOCATION 4D**

Under Location 4D, utility impacts and mitigation would be the same as outlined in Location 4A.

### **3.15.2.5 LOCATION 4E**

Under Location 4E, utility impacts and mitigation would be the same as outlined in Location 4A.

### **3.15.2.6 NO ACTION**

Under the No Action Alternative, utility use at the existing CBOC could increase slightly over time to accommodate increased workload; however, limitations on parking and exam room space would constrain the extent of visitation growth and resulting utility usage.

## **3.16 Environmental Justice and Environmental Health and Safety**

Executive Order 12898 (Federal Actions to Address Environmental Justice in Minority Populations and Low-Income Populations) requires that federal projects consider whether the project would have an adverse effect on minority or low-income populations. *Minority populations* are any readily identifiable groups of minority persons that live in geographic proximity. CEQ guidance states that minority populations should be identified where either (a) the minority population of the affected area exceeds 50% or (b) the minority population percentage of the affected area is meaningfully greater than the minority population percentage in the general population or other appropriate unit of geographic analysis. Low-income populations below the statistical poverty threshold identified in the Bureau of the Census' Current Population Reports also meet the criteria for consideration under Executive Order 12828.

Executive Order 13045 (Protection of Children from Environmental Health Risks) directs federal agencies to prioritize the identification and assessment of environmental health risks and safety risks that may disproportionately affect children. Executive Order 13045 encourages (but does not require) agencies to ensure that their policies, programs, activities, and standards address disproportionate risks to children resulting from environmental health risks or safety risks. Risks from the Proposed Action would be primarily related to noise and air quality. For example, noise in could affect on children's learning or

sleep. Changes in air quality from construction in areas frequented by children (such as playgrounds or outdoor recreation areas), could result in serious health effects or exacerbate existing respiratory disease.

### **3.16.1 Existing Conditions**

The locations under consideration in this EA are developed parcels in an area consisting primarily of mixed uses and low-density residential housing and areas zoned for commercial development. According to 2010 census data, Eugene's median family income is \$58,941, and 2010, the demographics of Eugene's residents are as follows: 85.8% white, 1.4% black or African-American, 1% American Indian or Alaska Native, 4% Asian, 0.2% Native Hawaiian and Other Pacific Islander, 2.9% some other race, and 4.7% two or more races (U.S. Census Bureau 2010). Springfield has a median family income of \$42,721, and the demographics of Springfield's residents are as follows: 85.9% white, 1.1% black or African-American, 1.4% American Indian or Alaska Native, 1.3% Asian, 0.3% Pacific Islander 5.2% some other race, and 4.8% two or more races (U.S. Census Bureau 2010). The median income for the project area census tracts is higher than the Department of Health and Human Services 2010 poverty guidelines for a family of four, which is \$22,050. The project area therefore does not represent a low-income or minority population.

### **3.16.2 Potential Environmental Impacts and Proposed Mitigation Measures**

#### **3.16.2.1 LOCATION 4A**

Location 4A is located in U.S. zip code 97408. According to 2010 census data the population of zip code 97408 was 11,711, and these residents had the following demographic profile: 89.5% white, 1% black or African-American, 0.8% American Indian or Alaskan Native, 3.8% Asian, 0.2% Pacific Islander, 1.4% some other race, and 3.3% two or more races (U.S. Census Bureau 2010). Zip code specific information is was not yet available from the 2010 Census, but according to the 2000 Census the median income for zip code 97408 was \$50,562 (U.S. Census Bureau 2000). Therefore, Location 4A would not have disproportionate impacts on minorities or low-income communities. Impacts from noise and traffic would be minor and would not be disproportionate to any low-income or minority populations. Under Location 4A, the Proposed Action would also be in compliance with Executive Order 13404. No mitigation measures are required to reduce impacts to less than significant levels.

#### **3.16.2.2 LOCATION 4B**

Location 4B is located in the same zip code as Location 4A; therefore, impacts and mitigation are expected to be the same.

#### **3.16.2.3 LOCATION 4C**

Location 4C is located in U.S. zip code 97477. According to 2010 census data the population of zip code 97477 was 36,874, and these residents had the following demographic profile: 85.3% white, 1.2% black or African-American, 1.7% American Indian or Alaskan Native, 1.4% Asian, 0.4% Pacific Islander, 5.4% some other race, and 4.8% two or more races (U.S. Census Bureau 2010). Zip code specific information is was not yet available from the 2010 Census, but according to the 2000 Census the median income for zip code 97477 was \$41,640 (U.S. Census Bureau 2000). Therefore, Location 4C would not have disproportionate impacts on minorities or low-income communities. Impacts from noise and traffic would be minor and would not be disproportionate to any low income or minority populations. Under Location 4C, the Proposed Action would also be in compliance with Executive Order 13404. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.16.2.4 LOCATION 4D**

Location 4D is located in the same zip code as Location 4A; therefore, impacts and mitigation are expected to be the same.

### **3.16.2.5 LOCATION 4E**

Location 4E is located in the same zip code as Location 4C; therefore, impacts and mitigation are expected to be the same.

### **3.16.2.6 NO ACTION**

Under the No Action Alternative, there would be no new environmental justice impacts to Eugene or Springfield residents.

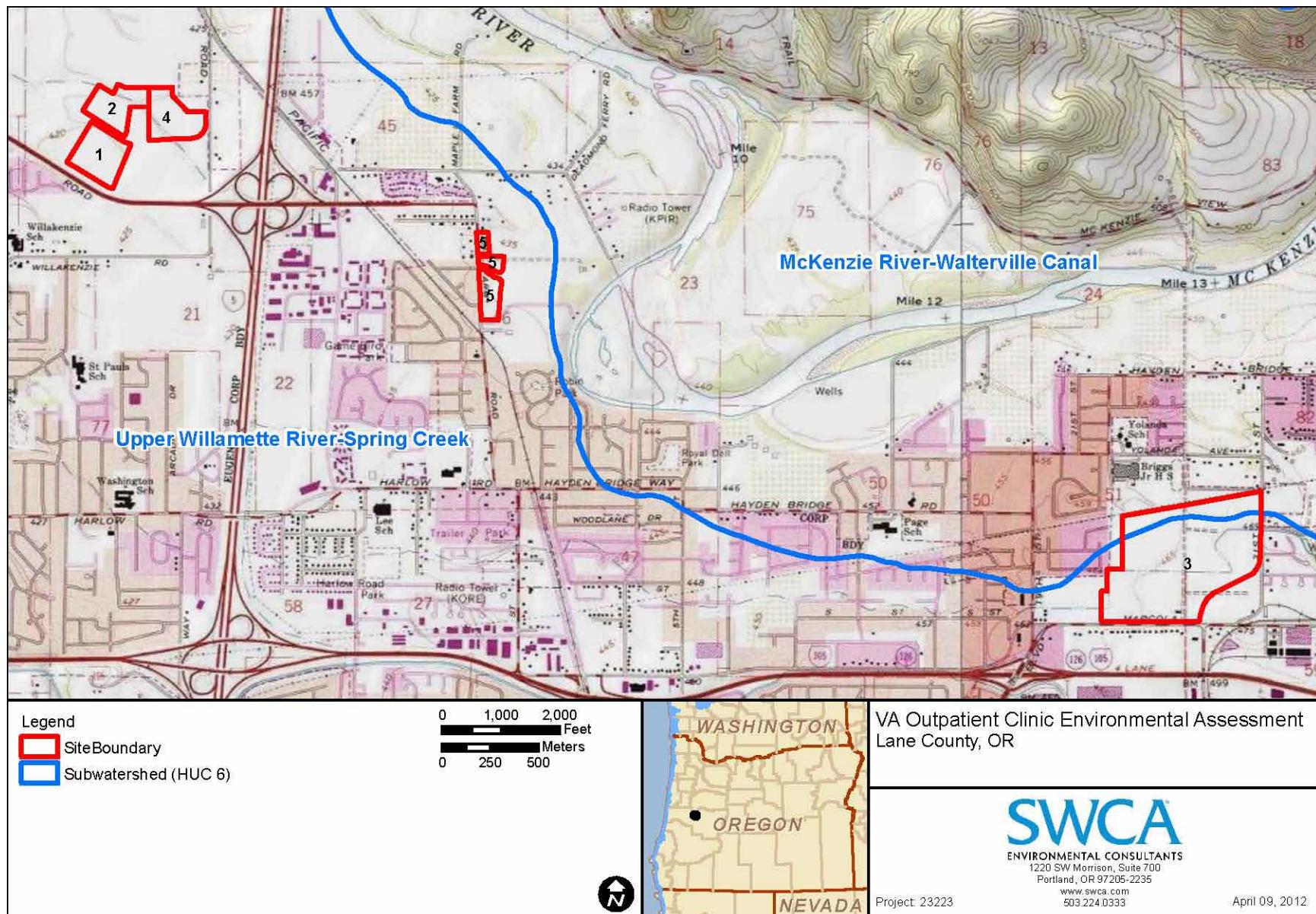
## **3.17 Cumulative Impacts**

*Cumulative impacts* are those impacts that result from the incremental impact of an action when added to other past, present, and reasonably foreseeable actions, regardless of which agency or person undertakes such other actions.

The impact area used for the cumulative impact analysis is the 33,268-acre McKenzie River–Walterville Canal and 30,554-acre Upper Willamette River–Spring Creek watersheds (Figure 3-1). Within the two watersheds, past, present, and reasonably foreseeable future activity includes zoned areas with the potential to create surface disturbance, such as urban, commercial, or residential land development or agricultural or forestry activities and parks and recreation.

Based on state zoning data, approximately 27,042 acres land is zoned for urban or commercial use (Table 3-7). These zoning categories cover approximately 42% of the two watersheds. Impacts from surface disturbance from the Proposed Action would comprise about 0.05% of the total disturbance from urban and commercial development, and would impact about 0.02% of the watersheds.

Impacts of past, present and reasonably foreseeable future activity would depend on the amount, placement, and type of surface disturbance, the type of soil and its characteristics, and the surface hydrology. Any land-disturbing activity that removes native vegetation and topsoil would adversely affect soil and watershed functions. These activities could also contribute to the loss of wildlife habitat and to the spread of noxious weeds.



**Figure 3-1.** Cumulative impacts analysis area.

## **3.18 Potential for Generating Substantial Controversy**

### **3.18.1.1 LOCATION 4A**

Location 4A is does not appear to be controversial. There are no known local entities with objections to Location 4A, and the Proposed Action is compatible with existing uses and zoning. Additionally, as part of government-to-government Section 106 consultation, tribal entities were informed of the proposed project. To date, no agencies and tribes have responded to the request for information or indicated that they have issues or concerns regarding the proposed project. No mitigation measures are required to reduce impacts to less than significant levels.

### **3.18.1.2 LOCATION 4B**

Project impacts and mitigation are expected to be the same for Location 4B as for Location 4A.

### **3.18.1.3 LOCATION 4C**

Project impacts and mitigation are expected to be the same for Location 4C as for Location 4A.

### **3.18.1.4 LOCATION 4D**

Project impacts and mitigation are expected to be the same for Location 4D as for Location 4A.

### **3.18.1.5 LOCATION 4E**

Project impacts and mitigation are expected to be the same for Location 4E as for Location 4A.

### **3.18.1.6 NO ACTION**

Under the No Action Alternative, controversy may be generated by local Veterans, and their public officials and supporters, who would have decreased access to needed health care services.

## **CHAPTER 4 MITIGATION**

Section 2.4 contains all best management practices (BMPs). No additional mitigation is required.

## **CHAPTER 5 CONCLUSIONS**

The following table provides a summary of impacts from the Proposed Action and No Action Alternative.

**Table 5-1.** Summary of Impacts

|                                    | <b>Location 4A</b>   | <b>Location 4B</b>   | <b>Location 4C</b>   | <b>Location 4D</b>  | <b>Location 4E</b>  | <b>No Action Alternative</b>                                    |
|------------------------------------|--|--|----------------------|---|---|---|
| <b>Aesthetics</b>                  | Beneficial improvements to undeveloped property. Acreage would be developed and attractively landscaped.   | Same as Location 4A.   | Same as Location 4A. | Same as Location 4A. Construction of the proposed facility would occur within the viewshed of NRHP-eligible properties. | Same as Location 4A. Construction of the proposed facility would occur within the viewshed of NRHP-eligible properties.   | No impacts beyond existing trends and conditions                |
| <b>Air Quality</b>                 | Minor, short-term impacts from construction equipment and dust during construction would be minimized through. Negligible impacts from operations.   | Same as Location 4A.   | Same as Location 4A. | Same as Location 4A.  | Same as Location 4A.  | No impacts beyond existing trends and conditions                |
| <b>Cultural Resources</b>          | No impacts to NRHP-eligible or potentially eligible properties.  | Same as Location 4A.   | Same as Location 4A. | Potential visual impacts to NRHP-eligible properties.   | Potential visual impacts to NRHP-eligible properties.   | No impacts to NRHP-eligible or potentially eligible properties. |
| <b>Geology and Soils</b>           | No impacts to geologic resources. Potential for erosion from a maximum of 13.2 acres of surface disturbance would be minimized through use of BMPs.  | No impacts to geologic resources. Potential for erosion from a maximum of 12.7 acres of surface disturbance would be minimized through use of BMPs.  | Same as Location 4A. | Same as Location 4A.  | No impacts to geologic resources. Potential for erosion from a maximum of 9.7 acres of surface disturbance would be minimized through use of BMPs.  | No impacts beyond existing trends and conditions.               |
| <b>Hydrology and Water Quality</b> | Potential for surface water impacts and sedimentation from a maximum of 13.2 acres of surface disturbance would be minimized through development of a SWPPP. No groundwater impacts due to spill prevention and stormwater treatment measures. | Potential for surface water impacts and sedimentation from a maximum of 12.7 acres of surface disturbance would be minimized through development of a SWPPP. No groundwater impacts due to spill prevention and stormwater treatment measures. | Same as Location 4A. | Same as Location 4A.  | Potential for surface water impacts and sedimentation from a maximum of 9.7 acres of surface disturbance would be minimized through development of a SWPPP. No groundwater impacts due to spill prevention and stormwater treatment measures. | No impacts beyond existing trends and conditions.               |

**Table 5-1.** Summary of Impacts

|   | <b>Location 4A</b>   | <b>Location 4B</b>   | <b>Location 4C</b>   | <b>Location 4D</b>   | <b>Location 4E</b>  | <b>No Action Alternative</b>   |
|---|--|--|--|--|---|--|
| <b>Wildlife and Habitat</b>                               | Loss of vegetation and potential wildlife habitat from a maximum of 13.2 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | Loss of vegetation and potential wildlife habitat from a maximum of 12.7 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | Same as Location 4A.   | Same as Location 4A.   | Loss of vegetation and potential wildlife habitat from a maximum of 9.7 acres of surface disturbance. Impacts from existing and potential invasive weed populations would be addressed through development of invasive weed survey and monitoring plans. Impacts to wildlife would be minimized by surveys conducted prior to construction, erosion control, and revegetation plan. | No impacts to wildlife and habitat beyond existing trends and conditions.                            |
| <b>Noise</b>  | Potential increase noise sources during construction, but noise would be similar to current levels; operational noise would be similar to current levels. Noise impacts would be further reduced through compliance with existing noise ordinances and codes.  | Same as Location 4A.   | Same as Location 4A.   | Same as Location 4A.   | Same as Location 4A.  | No additional noise impacts beyond the existing trends from traffic and current cemetery activities. |
| <b>Land Use</b>   | Compatible with existing land uses and zoning.   | Same as Location 4A.   | Same as Location 4A.   | Same as Location 4A.   | Same as Location 4A.  | No impacts to existing land use.   |
| <b>Floodplains, Wetlands, and Coastal Zone Management</b> | No direct impacts to wetlands. Indirect impacts to 0.65 acre of wetlands would be avoided through  | Direct impacts to 0.18 acre to wetlands. Indirect impacts would be avoided through   | Direct impacts to 1.58 acres of jurisdictional wetlands and 0.43 acre and 1,100 linear | Direct impacts to 0.16 acre to wetlands. Indirect impacts would be avoided through | No impacts to wetlands or jurisdictional waters.  | No impacts to floodplains or wetlands.   |

**Table 5-1.** Summary of Impacts

|                                      | <b>Location 4A</b>  | <b>Location 4B</b>                             | <b>Location 4C</b>  | <b>Location 4D</b>                             | <b>Location 4E</b>   | <b>No Action Alternative</b>   |
|--------------------------------------|---|--|---|--|--|--|
|                                      | avoided through BMPs.<br><br>No floodplains or CMZAs affected.  | BMPs.<br><br>No floodplains or CMZAs affected. | feet of jurisdictional waters. Indirect impacts would be avoided through BMPs.<br><br>No floodplains or CMZAs affected. | BMPs.<br><br>No floodplains or CMZAs affected. | No CMZAs affected.<br><br>Development would occur within a Zone X flood zone.  |  |
| <b>Socioeconomics</b>                | During construction, temporary jobs would be created. Negligible change to employment patterns during operations.   | Same as Location 4A.                           | Same as Location 4A.  | Same as Location 4A.                           | Same as Location 4A.   | No change to economic trends.  |
| <b>Community Services</b>            | No change to existing services.   | Same as Location 4A.                           | Same as Location 4A.  | Same as Location 4A.                           | Same as Location 4A.   | No change to existing services.  |
| <b>Solid and Hazardous Materials</b> | Some amounts of hazardous materials would be stored on site. Site contains no known RECs or HRECs, EPA NPL sites, or violations of nearby hazardous waste generators. | Same as Location 4A.                           | Same as Location 4A.  | Same as Location 4A.                           | Same as Location 4A.   | No changes from existing conditions.   |
| <b>Transportation and Parking</b>    | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 2.6% on the Beltline and 2.1% on I-5.                                      | Same as Location 4A.                           | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 3.2% on SR 126.              | Same as Location 4A.                           | Compatible with road designation and 2002 Transportation Plan. Maximum traffic increase of 5.1% on the Beltline, 2.1% on I-5, and 2.3% on SR 126 | No changes from existing conditions. Parking would continue to be insufficient to meet demand. |
| <b>Utilities</b>                     | Slight increase in electrical and water needs to service new facility building and additional acreage requiring irrigation.   | Same as Location 4A.                           | Same as Location 4A.  | Same as Location 4A.                           | Same as Location 4A.   | No change beyond existing utility demands.   |

**Table 5-1.** Summary of Impacts

|   | <b>Location 4A</b>  | <b>Location 4B</b>   | <b>Location 4C</b>   | <b>Location 4D</b>   | <b>Location 4E</b>   | <b>No Action Alternative</b>  |
|---|---|----------------------|----------------------|----------------------|----------------------|---|
| <b>Environmental Justice</b>                            | No disproportionate impacts to minority or low income communities.        | Same as Location 4A. | No disproportionate impacts to minority or low income communities.  |
| <b>Cumulative Impacts</b>                               | Would contribute to reasonably foreseeable projects within the watershed. | Same as Location 4A. | No contribution to cumulative impacts.  |
| <b>Potential for Generating Substantial Controversy</b> | No known controversy.   | Same as Location 4A. | Potential controversy from Veterans if current CBOC service fails to meet anticipated enrollment and workload growth. |

## **CHAPTER 6 LIST OF PREPARERS**

**Table 6-1.** Consultants Contributing to Environmental Assessment Preparation

| Name                       | Title                             | Responsible for the Following Section(s) of this Document                             |
|----------------------------|-----------------------------------|---|
| Amanda Childs, B.S.        | Project Manager and QA/QC Manager | Document preparation, environmental analysis, quality assurance/quality control       |
| Sue Wilmot, Ph.D.          | NEPA Lead                         | NEPA writing lead and oversight   |
| Melissa Katz-Moye, M.S.    | GIS Manager                       | GIS analysis  |
| Jesse Wilson, B.S.         | Resource Specialist               | Hydrology, Geology and Soils, Floodplains, Wetlands and Coastal Zone Management Areas |
| Bridget Crokus, B.S.       | Resource Specialist               | Vegetation and Wildlife   |
| Jarod Dunn, M.S.           | Resource Specialist               | Socioeconomics, Community Services, Environmental Justice                             |
| Celia Moret-Ferguson, B.S. | Resource Specialist               | Cultural Resources  |
| Heather Hedden, B.A.       | Resource Specialist               | Air Quality, Noise  |
| Janet Guinn, B.A.          | Resource Specialist               | Solid Waste and Hazardous Materials, Transportation                                   |

**Table 6-2.** VA Personnel Contributing to Environmental Assessment Preparation

| Name           | Title                           | Responsible for the Following Section(s) of this Document  |
|----------------|---------------------------------|--|
| Tim Pavek      | CRCRE: IDIQ Broker              | Document review; information regarding on-site conditions. |
| Evelyn Johnson | CRCRE: SOW and Contract Manager | Document review; information regarding on-site conditions. |
| Garth Stacey   | VHAROS; Point of Contact        | Document review  |
| Dan Ritchie    | VHAROS                          | Document review  |
| Christine Rai  | VA National Office              | Document review  |
| Tom Moran      | CFM: Environmental Engineer     | Document review  |

## **CHAPTER 7 PUBLIC COMMENT AND RESPONSE**

The draft EA was published on June 1, 2012 and has been made available for a 30-day public review period. A notice of availability for a draft EA has been published in the Springfield Times on June 1, June 8, and June 15, 2012 and the Register Guard on June 1, 2, and 3, 2012. These two newspapers serve the Eugene/Springfield metropolitan area.

Copies of the document are available at the Springfield Public Library, the Eugene Public Library, and the Sheldon Branch Public Library and also available electronically by request.

Additionally, as part of government-to-government Section 106 consultation, the following tribal entities were informed by letter of the proposed project.

- Confederated Tribes of Warm Springs
- Confederated Tribes of Grand Ronde
- Confederated Tribes of Siletz
- Cow Creek Band of the Umpqua
- Confederated Tribes of Coos
- Lower Umpqua & Siuslaw
- CIS (Commission on Indian Services)

## CHAPTER 8 AGENCIES CONSULTED AND DATA SOURCES

### 8.1 Agency Consultation

**Table 8-1.** Agencies Consulted for Environmental Assessment

| Agency                                    | Contact   | Information Provided   |
|---|---|--|
| Native American Consultation              | Various, see above  | Consultation initiated by VA on June 1, 2012. No responses received to date.   |
| USFWS—Pacific Region                      | U.S. Fish & Wildlife Service<br>Pacific Region<br>911 NE 11th Ave<br>Portland, Oregon 97232<br>(503) 231-6120 | Endangered Species Act Section 7 consultation—Informal Consultation Clearance. Consultation to be initiated by VA upon selection of preferred location.    |
| State Historic Preservation Office (SHPO) | Heritage Programs<br>Oregon Parks & Recreation Dept.<br>725 Summer St NE, Ste C<br>Salem, OR 97301            | National Historic Preservation Act Section 106 compliance for cultural resources. Consultation to be initiated by VA upon selection of preferred location. |

### 8.2 Data Sources

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## **CHAPTER 9 LIST OF PERMITS AND AUTHORIZATIONS**

**Table 9-1.** Permits and Authorizations Required for Environmental Assessment

| <b>Agency</b>                                  | <b>Permit/Authorization</b>                         | <b>Permit or Authorization Status</b>  |
|--|---|--|
| U.S. Army Corps of Engineers—Portland District | Section 404 Dredge and Fill Permit                  | Filed as part of joint application for State Removal-Fill Permit                               |
| Oregon Department of Environmental Quality     | Section 401 Water Quality Certification.            | Permit application to be submitted upon selection of preferred location.                       |
| Oregon Department of Environmental Quality     | NPDES 1200-C or 1200-CN Stormwater Discharge Permit | Permit application to be submitted upon selection of preferred location.                       |
| Department of State Lands                      | State Removal-Fill Permit and Wetland Delineation   | Permit application to be submitted upon selection of preferred location.                       |
| Lane County                                    | Floodplain Development Permit                       | For Location 4E only. Permit application to be submitted upon selection of preferred location. |
| City of Eugene/Springfield                     | Local Building Permits                              | Permit application to be submitted upon selection of preferred location.                       |

## **CHAPTER 10 LIST OF ACRONYMS AND ABBREVIATIONS**

|                          |   |
|--------------------------|---|
| 2002 Transportation Plan | Eugene-Springfield Transportation System Plan                       |
| AADT                     | average annual daily traffic  |
| ACEPM                    | Applicant Committed Environmental Protection Measures.              |
| APE                      | Area of Potential Effect  |
| ASTM                     | American Society for Testing and Materials                          |
| BMPs                     | Best Management Practices   |
| C.F.R.                   | Code of Federal Regulations   |
| CAA                      | Clean Air Act of 1970   |
| CBOC                     | Community Based Outpatient Clinic                                   |
| CEQ                      | Council on Environmental Quality                                    |
| CERCLA                   | Comprehensive Environmental Response Compensation and Liability Act |
| CZMAs                    | coastal zone management areas                                       |
| DSL                      | Oregon Department of State Lands                                    |
| EA                       | Environmental Assessment  |
| EPA                      | Environmental Protection Agency                                     |
| ESA                      | Endangered Species Act  |
| FEMA                     | Federal Emergency Management Agency                                 |
| FIRM                     | Flood Insurance Rate Map  |
| FONSI                    | Finding of No Significant Impact                                    |
| GLO                      | General Land Office   |
| HRECs                    | Historical recognized environmental conditions                      |
| LOS                      | level of service  |
| LRAPA                    | Lane Regional Air Protection Agency                                 |
| MBTA                     | Migratory Bird Treaty Act   |
| NAAQS                    | National Ambient Air Quality Standards                              |
| NEPA                     | National Environmental Policy Act                                   |
| NHD                      | National Hydrography Dataset  |
| NPDES                    | National Pollutant Discharge Elimination System                     |
| NRCS                     | Natural Resources Conservation Service                              |
| NRHP                     | National Register of Historic Places                                |
| NWI                      | National Wetlands Inventory   |
| NWI                      | National Wetlands Inventory   |

|        |  |
|--------|--|
| ODEQ   | Oregon Department of Environmental Quality |
| ODFW   | Oregon Department of Fish and Wildlife     |
| ODOT   | Oregon Department of Transportation        |
| PPE    | personal protective equipment              |
| RCRA   | Resource Conservation and Recovery Act     |
| RECs   | Recognized environmental conditions        |
| SHPO   | State Historic Preservation Office         |
| SR     | State Route                                |
| SWCA   | SWCA Environmental Consultants             |
| SWPPP  | stormwater pollution prevention plan       |
| U.S.C. | United States Code                         |
| USACE  | U.S. Army Corps of Engineers               |
| USFWS  | U.S. Fish and Wildlife Service             |
| USGS   | U.S. Geological Survey                     |
| UST    | underground storage tank                   |
| VA     | U.S. Department of Veterans Affairs        |

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**APPENDIX A**

**Cultural Resources Report**



## CULTURAL RESOURCES

This section evaluates the sensitivity of each project alternative for encountering cultural resources. In order to assess cultural resource sensitivity, a files search and review of supplemental records was completed, and a map-based assessment of relevant environmental factors was undertaken. The following discussion describes the methods used in the assessment, and explains how the final ranking of each project alternative was made.

### File Searches

A qualified archaeologist from SWCA conducted a file search at the Oregon State Historic Preservation Office (SHPO) on April 6, 2012, based on the legal sections encompassing the five project alternatives. The file searches included previous cultural resource inventories, previously recorded archaeological site and isolate records, and historic properties records. The search for previously recorded archaeological resources was conducted within a one-mile buffer around each project alternative. The search for historic properties was extended outwards to an approximated viewshed based on the estimated potential to see the property from the project alternative and vice versa. The results of this search are listed in Table A-1.

The file search was supplemented by an online review of USGS quadrangle maps dating to 1946, Metsker maps dating to 1934, and GLO maps dating to 1853, 1860, and 1890, focusing on features depicted within the boundaries of each alternative, hereafter defined as the direct area of potential effect, or APE (GLO 1853, 1860, 1890; Metsker 1934; USGS 1946). Together, these sources provided an overview of the possibility for historic resources within the APE for each project alternative. The results of this research are listed in Table A-1.

The data gathered during the files search and supplemental records search provided the core information utilized to rank and assess each alternative for cultural sensitivity.

### Environmental Factors

In addition to the presence or absence of cultural resources within either the APE or the 1-mile buffer of the five locations, there are several other environmental factors that may impact the possibility of encountering archaeological and historical resources. These were broken down into the categories of: previous ground disturbance (which could have obscured or destroyed archaeological evidence); topography, and distance to water (Table A-2) (Google Earth 2012; USGS 1979). These environmental variables were weighted secondary for ranking relative to the data derived from the files and supplemental records search.

### Comparative Ranking of Cultural Sensitivity by Project Alternative

Each project alternative was ranked within a range of high to low sensitivity for encountering cultural resources. Common surface conditions of all alternatives established that in no case would there be a zero potential for encountering cultural remains. As noted above, the ranking of the project alternatives is weighted primarily on the data identified during the files searches and supplemental records search, and secondarily on environmental factors. No archaeological sites or aboveground historic resources have been previously identified within the APE for any of the project alternatives. Proposed project alternatives

that have a close proximity to previously identified cultural resources, and other potential resources based on historic maps, are ranked higher in sensitivity (Table A-1). The eligibility and evaluation for listing in the National Register of Historic Places (NRHP) was also considered for all previously recorded resources that were identified.

Proposed project alternatives that have a closer proximity to water, exhibit topographic characteristics conducive for habitation (such as higher and flatter locations), and that have a low level of ground disturbance were ranked higher in sensitivity (Table A-2). Importantly, all alternatives appear to have been heavily disturbed by previous agricultural and industrial activities and all are located on a river terrace of the McKenzie River with gently undulating terrain. Although all of the project alternatives are within 1 mile of the McKenzie River, Location 4E is particularly close, and thus may have a higher sensitivity for encountering cultural resources typical of river terraces, including shell middens or fishing remnants.

### ***Location 4A: Medium-Low Sensitivity***

Location 4A is ranked as having medium-low sensitivity for cultural resources, largely due to the isolated archaeological resources that have been previously identified within the 1-mile buffer. This location appears to have been highly disturbed from previous activities, including its use as an agricultural field, and contains several unimproved modern drainage ditches. Although the likelihood of encountering surface or shallowly buried cultural remains is considered low given the high level of disturbance, the presence of previously recorded resources in the vicinity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### ***Location 4B: Medium-Low Sensitivity***

Location 4B is also ranked as having medium-low sensitivity for cultural resources, again largely due to the isolated archaeological resources that have been previously identified within the 1-mile buffer. This location appears to have been highly disturbed from previous activities, including its use as an agricultural field, and contains several unimproved modern drainage ditches. Although the likelihood of encountering surface or shallowly buried cultural remains is considered low given the high level of disturbance, the presence of previously recorded resources in the vicinity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### ***Location 4C: Medium-Low Sensitivity***

Location 4C is ranked as having medium-low sensitivity for cultural resources due to the relatively few archaeological resources that have been previously identified within 1-mile of the area, and the fact that those resources that have been previously identified are approximately 0.9 mile away. Although the resources have been recorded as sites rather than isolates, they do not appear to have extensive associated remains. The one aboveground historic property that has been previously identified as within the viewshed of this alternative is considered not eligible for listing on the NRHP, and thus any development of Location 4C will have no adverse impact on the historic property. Given that the area appears to be a post-industrial field with several unimproved modern roads and modern drainage ditches, it would be unlikely to encounter surface or shallowly buried cultural remains given the high level of disturbance.

### ***Location 4D: High Sensitivity***

Location 4D is ranked as having high sensitivity for cultural resources both due to the isolated archaeological resources that have been previously identified within the 1-mile buffer as well as the

presence of four aboveground historic properties within the viewshed that have all been recommended as eligible for listing on the NRHP. Any development of Location 4D would need to consider adverse impacts that the development may have on the integrity of these properties. Ranking of this project alternative as having high sensitivity is also due to the close proximity of one archaeological resource, described as an isolated find. An isolated historic-period hand-forged hook and four square nails were identified less than 0.1 mile from the direct area of potential effects of Location 4D. According to a 1934 Metsker map, a Game Farm was located immediately adjacent to the northeast of Location 4D, increasing the likelihood for encountering associated historic-period cultural resources. Given that the area appears to currently be an agricultural field, it is unlikely that surface or shallowly buried cultural remains will be encountered given the high level of disturbance. However, the presence of previously recorded resources in close proximity suggests that there may be some potential for encountering cultural resources in deeper, intact deposits.

### ***Location 4E: Highest Sensitivity***

Location 4E is ranked as having the highest sensitivity for cultural resources among the five alternatives, largely due to the close proximity of an archaeological site. The Stevens Family Pioneer Cemetery was identified less than 0.1 mile from the APE. Although the cemetery has been fully excavated and the PeaceHealth Sacred Heart Medical Center at RiverBend has been constructed atop the cemetery's previous location, the close proximity of this site to the project alternative provides the likelihood of encountering historic-period cultural resources associated with the burials or the Stevens family homestead. This alternative is also ranked as having high sensitivity due to the presence of three aboveground historic properties within the viewshed that are also all associated with the Stevens property and that have been recommended as eligible for listing on the NRHP. Any development of Location 4E would need to consider adverse impacts that it may have on the integrity of these properties. According to a 1946 USGS quad map, two buildings were located within the western portion of Location 4E, increasing the likelihood for encountering associated historic-period cultural resources. Given that the area is located only 0.3 mile from the McKenzie River, there may a higher potential for Precontact archaeological cultural resources in deeper, intact deposits. Shallow intact deposits may exist in the portions of the Location 4E that have not been previously disturbed by agricultural practices.

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**Table A-1.** Sensitivity Based on Records Search

| Location | Cultural Resources within 1-mile and NRHP Eligibility (SHPO 2012a)   | Number of Previous Cultural Resource Inventories Within APE and Survey Results (SHPO 2012a) | Number of Previous Cultural Resource Inventories Within 1-mile and Survey Results (SHPO 2012a) | Historic Properties Within Viewshed and NRHP Eligibility (SHPO 2012b)  | Historic 1934 Metsker Map and 1946 USGS Map Results within Direct Project Alternative Area (Metsker 1934, USGS 1946)                         | Historic 1853, 1860, and 1890 GLO Map Results within Direct Project Alternative Area (GLO 1853, 1860, 1890) |
|----------|--|---|--|--|--|---|
| 4A       | -Isolated Prehistoric Pestle- NE<br>-Isolated Historic-period Square Nails and Hand Forged Hook- NE<br>-Isolated Prehistoric Flakes- NE  | 1- negative   | 8 (3 positive and 5 negative)  | None   | -E.B. Simons property<br>-Geo. H. Armitage DLC   | -George H. Armitage property  |
| 4B       | -Isolated Prehistoric Pestle- NE<br>-Isolated Historic-period Square Nails and Hand Forged Hook- NE<br>-Isolated Prehistoric Flakes- NE  | 0   | 8 (3 positive and 5 negative)  | None   | -E.B. Simons and J. Maughan Jr. et al. property<br>-Geo. H. Armitage DLC   | -George H. Armitage property  |
| 4C       | -Prehistoric Midden Site- U<br>-Prehistoric Midden Site- U   | 0   | 1 (negative)   | -Lane County Armed Forces Center- NE   | -R.H. Pierce property<br>-Felix Scott DLC<br>-Unnamed Road (no longer visible)   | -Portion is agricultural crop.<br>-Felix Scott Jun. property  |
| 4D       | -Isolated Prehistoric Pestle- NE<br>-Isolated Historic-period Square Nails and Hand Forged Hook- NE<br><b>close proximity</b><br>-Isolated Prehistoric Flakes- NE  | 1- negative   | 8 (3 positive and 5 negative)  | -1873 Rhea-Relvea Farm- E<br>-1939 Relvea, Dmore House- E<br>-1924 Pruitt Farm- E<br>-1854 Landes, Abraham & Amanda House- E | -E.B. Simons and J. Maughan Jr. et al. property<br>-Geo. H. Armitage DLC<br>-Adjacent to Game Farm   | -George H. Armitage property  |
| 4E       | -Isolated Prehistoric Pestle- NE<br>-Isolated Historic-period Square Nails and Hand Forged Hook- NE<br>-Isolated Prehistoric Flakes- NE<br>-Stevens Family Pioneer Cemetery Site- U <b>close proximity</b> | 1- negative   | 7 (4 positive and 3 negative)  | -1851 Stevens, Williams House- E<br>-1910 Stevens, Welby Barn- E<br>-1875 Stevens, James House- E                            | -C.V. Conley property<br>-P.C. Krogstad property<br>-GGO. B. Simmons Property<br>-WM. M. Stevens. DLC<br>-Adjacent to road<br>-Two buildings | -Adjacent to road<br>-Williams M. Stevens property  |

\*NE = Not Eligible, U=Unevaluated, E=Eligible

Key:      **High Sensitivity**

**Medium-Low Sensitivity**

**Low Sensitivity**

**Table A-2.** Secondary Sensitivity Based on Environmental Factors

| Location | Previous Ground Disturbances to Lot<br>(Google Earth 2012)          | Topography (USGS 1979)   | Landform (USGS 1979)         | Distance to Water (Google Earth 2012)                      |
|----------|---|--|------------------------------|--|
| 4A       | Approximately 95% heavy to moderate agricultural ground disturbance | Gently undulating agricultural field with drainage ditches                                 | Fluvial Terrace/ Flood plain | McKenzie River 1.2 mile NE                                 |
| 4B       | Approximately 90% heavy to moderate agricultural ground disturbance | Gently undulating agricultural field with drainage ditches                                 | Fluvial Terrace/ Flood plain | McKenzie River 1.0 mile NE                                 |
| 4C       | Approximately 95% heavy to moderate industrial ground disturbance   | Gently undulating post industrial field with several unimproved roads and drainage ditches | Fluvial Terrace/ Flood plain | Unnamed drainage 0.1 mile East McKenzie River 0.6 miles NE |
| 4D       | Approximately 90% heavy to moderate agricultural ground disturbance | Gently undulating agricultural field   | Fluvial Terrace/ Flood plain | McKenzie River 0.9 mile NE                                 |
| 4E       | Approximately 65% heavy to moderate agricultural ground disturbance | Gently undulating agricultural fields and orchards   | Fluvial Terrace/ Flood plain | McKenzie River 0.3 mile E                                  |

Key:

**High Sensitivity****Medium-Low Sensitivity****Low Sensitivity**

**APPENDIX B**

**Threatened and Endangered Species Documentation**



**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name            | Scientific Name                    | Status | Habitat   | Proposed Alternatives With Potential for Species' Occurrence |
|------------------------|------------------------------------|--------|---|--|
| <b>Birds</b>           |                                    |        |   |  |
| Acorn Woodpecker       | <i>Melanerpes formicivorus</i>     | SOC    | <b>Terrestrial:</b> riparian; hardwood and mixed woodlands.   | None   |
| Band-tailed Pigeon     | <i>Patagioenas fasciata</i>        | SOC    | <b>Terrestrial:</b> riparian; conifer, hardwood and mixed forests; suburban/orchard; cropland/hedgerow; conifer, hardwood and mixed woodlands.  | All  |
| Black Oystercatcher    | <i>Haematopus bachmani</i>         | SOC    | <b>Terrestrial:</b> tidal flat/shore; bare rock/talus/scree.  | None   |
| Black Tern             | <i>Chlidonias niger</i>            | SOC    | <b>Marine:</b> near shore, shallow water.<br><b>Estuarine:</b> bay/sound; lagoon; river mouth/tidal river; tidal flat/shore.<br><b>Riverine:</b> big river, low gradient; medium river.<br><b>Lacustrine:</b> deep and shallow waters.<br><b>Terrestrial:</b> grassland/herbaceous. | All  |
| Harlequin Duck         | <i>Histrionicus histrionicus</i>   | SOC    | <b>Marine:</b> near shore.<br><b>Riverine:</b> creek, high gradient; medium river.<br><b>Palustrine:</b> riparian.  | None   |
| Lewis' Woodpecker      | <i>Melanerpes lewis</i>            | SOC    | <b>Terrestrial:</b> riparian; savanna; suburban/orchard; conifer, hardwood, and mixed woodlands.  | All  |
| Marbled Murrelet       | <i>Brachyramphus marmoratus</i>    | T      | <b>Marine:</b> near shore, shallow water.<br><b>Estuarine:</b> bay/sound; lagoon; river mouth/tidal river.<br><b>Lacustrine:</b> deep water.<br><b>Terrestrial:</b> alpine; conifer forest; tundra.   | None   |
| Mountain Quail         | <i>Oreortyx pictus</i>             | SOC    | <b>Terrestrial:</b> riparian, conifer and mixed forest; conifer and mixed woodlands; shrubland/chaparral.   | None   |
| Northern Goshawk       | <i>Accipiter gentilis</i>          | SOC    | <b>Terrestrial:</b> riparian; conifer, hardwood, and mixed forests; conifer, hardwood, and mixed woodlands.   | None   |
| Northern Spotted Owl   | <i>Strix occidentalis caurina</i>  | T      | <b>Terrestrial:</b> riparian; conifer and mixed forests.  | None   |
| Olive-sided Flycatcher | <i>Contopus cooperi</i>            | SOC    | <b>Terrestrial:</b> bog/fen; forested wetland; riparian; conifer, hardwood, and mixed forests; conifer, hardwood, and mixed woodlands.  | 4A<br>4B<br>4C<br>4D   |
| Oregon Vesper Sparrow  | <i>Pooecetes gramineus affinis</i> | SOC    | <b>Terrestrial:</b> grassland, agricultural, shrub-steppe.  | All  |

**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name                                    | Scientific Name                        | Status | Habitat  | Proposed Alternatives With Potential for Species' Occurrence |
|--|--|--------|--|--|
| Purple Martin                                  | <i>Progne subis</i>                    | SOC    | <b>Terrestrial:</b> herbaceous wetland; tidal flat/shore; riparian; cropland/hedgerow; grassland/herbaceous; savanna; shrubland/chaparral; suburban/orchard; desert; conifer and hardwood woodlands.                                   | All  |
| Short-tailed Albatross                         | <i>Diomedea albatrus</i>               | E      | <b>Marine:</b> shallow water.<br><b>Terrestrial:</b> grassland/herbaceous.   | All  |
| Streaked Horned Lark                           | <i>Eremophila alpestris strigata</i>   | C      | <b>Terrestrial:</b> cropland/hedgerow; grassland/herbaceous; sand/dune.  | All  |
| Western Burrowing Owl                          | <i>Athene cunicularia hypugaea</i>     | SOC    | <b>Terrestrial:</b> grasslands/herbaceous, sometimes near human habitation (e.g., campuses, airports, golf courses, perimeter of agricultural fields, banks of irrigation canals).   | All  |
| Western Snowy Plover (Coastal population only) | <i>Charadrius alexandrinus nivosus</i> | T      | <b>Terrestrial:</b> tidal flat/shore; bare rock/talus/scree; playa/salt flat; sand/dune; riparian.   | None   |
| Yellow-breasted Chat                           | <i>Icteria virens</i>                  | SOC    | <b>Terrestrial:</b> forested wetland; riparian; shrubland/chaparral; hardwood woodland.  | None   |
| <b>Fish</b>                                    |  |        |  |  |
| Bull Trout (Range-wide)                        | <i>Salvelinus confluentus</i>          | T      | <b>Riverine:</b> big river, creek, high and low gradients; medium river, moderate gradient; pool, riffle, deep and shallow waters.   | 4C<br>4D   |
| Coastal cutthroat trout                        | <i>Oncorhynchus clarki</i> ssp.        | SOC    | <b>Marine:</b> near shore.<br><b>Estuarine:</b> bay/sound; river mouth/tidal river.<br><b>Riverine:</b> creek, high and low gradients; medium river, moderate gradient; pool, riffle.<br><b>Lacustrine:</b> shallow water.             | 4C<br>4D   |
| Malheur mottled sculpin                        | <i>Cottus bairdi</i> ssp.              | SOC    | <b>Riverine:</b> creek.  | 4C<br>4D   |
| Oregon Chub                                    | <i>Oregonichthys crameri</i>           | T      | <b>Riverine:</b> creek, low gradient; medium river, pool; shallow water.   | 4C<br>4D   |
| Pacific lamprey                                | <i>Lampetra tridentata</i>             | SOC    | <b>Marine:</b> near shore, shallow water.<br><b>Estuarine:</b> bay/sound; river mouth/tidal river.<br><b>Riverine:</b> big river, creek, medium river; moderate gradient, pool, riffle.<br><b>Lacustrine:</b> deep and shallow waters. | None   |
| <b>Invertebrates</b>                           |  |        |  |  |
| Fender's blue butterfly                        | <i>Icaricia icarioides fenderi</i>     | E      | <b>Terrestrial:</b> prairie.   | All  |
| Insular blue butterfly                         | <i>Plebejus saepiolus insulanus</i>    | SOC    | <b>Terrestrial:</b> riparian; bogs; wet meadows; roadsides; open meadows   | All  |

**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name  | Scientific Name                         | Status | Habitat  | Proposed Alternatives With Potential for Species' Occurrence |
|--|---|--------|--|--|
| One-spot<br>ryacophilan<br>caddisfly                                       | <i>Rhyacophila<br/>unipunctata</i>      | SOC    | <b>Riverine:</b> creek.  | 4C<br>4D   |
| Oregon silverspot<br>butterfly   | <i>Speyeria zerene<br/>hippolyta</i>    | T      | <b>Terrestrial:</b> grassland/herbaceous;<br>sand/dune.  | All  |
| Tombstone Prairie<br>farulan caddisfly                                     | <i>Farula reaperi</i>                   | SOC    | <b>Riverine:</b> creek; spring/spring brook.   | 4C<br>4D   |
| Tombstone Prairie<br>oligophlebodes<br>caddisfly                           | <i>Oligophlebodes<br/>mostbento</i>     | SOC    | <b>Riverine:</b> creek.  | 4C<br>4D   |
| <b>Mammals</b>   |   |        |  |  |
| Camas pocket<br>gopher   | <i>Thomomys<br/>bulbivorus</i>          | SOC    | <b>Terrestrial:</b> cropland/hedgerow;<br>grassland/herbaceous.  | All  |
| Fringed myotis   | <i>Myotis thysanodes</i>                | SOC    | <b>Terrestrial:</b> riparian; cliff; desert;<br>grassland/herbaceous;<br>suburban/orchard, urban/edificarian;<br>conifer and mixed woodlands.<br><b>Subterrestrial:</b> caves; mines; rock<br>crevices.              | All  |
| Long-eared myotis  | <i>Myotis evotis</i>                    | SOC    | <b>Terrestrial:</b> riparian, conifer,<br>hardwood, and mixed forests;<br>grassland/herbaceous;<br>shrubland/chaparral; conifer,<br>hardwood, and mixed woodlands.<br><b>Subterrestrial:</b> mines; caves, fissures. | All  |
| Long-legged myotis   | <i>Myotis volans</i>                    | SOC    | <b>Terrestrial:</b> riparian; cliff; desert;<br>conifer and mixed forests;<br>grassland/herbaceous; conifer and<br>mixed woodlands.<br><b>Subterrestrial:</b> caves, mines, rock<br>crevices.                        | All  |
| North American<br>wolverine  | <i>Gulo gulo luscus</i>                 | C      | <b>Terrestrial:</b> alpine; conifer forest;<br>grassland/herbaceous;<br>shrubland/chaparral; tundra; conifer<br>woodland.  | All  |
| Pallid Bat   | <i>Antrozous pallidus<br/>pacificus</i> | SOC    | <b>Terrestrial:</b> riparian; cliff; desert;<br>grassland/herbaceous;<br>shrubland/chaparral; conifer and mixed<br>woodlands.<br><b>Subterrestrial:</b> caves; rock crevices.  | All  |
| Red tree vole<br>(North Oregon<br>Coast distinct<br>population<br>segment) | <i>Arborimus<br/>longicaudus</i>        | C      | <b>Terrestrial:</b> conifer forest.  | None   |
| Silver-haired bat  | <i>Lasionycteris<br/>noctivagans</i>    | SOC    | <b>Terrestrial:</b> riparian; conifer,<br>hardwood, and mixed forests; conifer,<br>hardwood, and mixed woodlands.  | None   |

**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name                      | Scientific Name                           | Status | Habitat  | Proposed Alternatives With Potential for Species' Occurrence |
|----------------------------------|---|--------|--|--|
| Townsend's western big-eared bat | <i>Corynorhinus townsendii townsendii</i> | SOC    | <b>Terrestrial:</b> riparian; conifer, hardwood, and mixed forests; grassland/herbaceous; savanna; shrubland/chaparral; conifer, hardwood, and mixed woodlands.<br><b>Subterrestrial:</b> caves; mines.                                | All  |
| White-footed vole                | <i>Arborimus albipes</i>                  | SOC    | <b>Terrestrial:</b> riparian; conifer and mixed forests.   | None   |
| Yuma myotis                      | <i>Myotis yumanensis</i>                  | SOC    | <b>Terrestrial:</b> riparian; desert; conifer and mixed forests; grassland/herbaceous; shrubland/chaparral; suburban/orchard; urban/edificarian; conifer and mixed woodlands.<br><b>Subterrestrial:</b> caves; mines.                  | All  |
| <b>Reptiles/Amphibians</b>       |   |        |  |  |
| Cascades frog                    | <i>Rana cascadae</i>                      | SOC    | <b>Riverine:</b> creek, pool; spring/spring brook.<br><b>Lacustrine:</b> shallow water.<br><b>Palustrine:</b> bog/fen; herbaceous wetland; riparian; scrub-shrub wetland; temporary pool.<br><b>Terrestrial:</b> grassland/herbaceous. | All  |
| Coastal tailed frog              | <i>Ascaphus truei</i>                     | SOC    | <b>Riverine:</b> creek, high gradient, moderate gradient, pool, riffle; spring/spring brook.<br><b>Palustrine:</b> riparian.<br><b>Terrestrial:</b> conifer and mixed forests.   | None   |
| Foothill yellow-legged frog      | <i>Rana boylii</i>                        | SOC    | <b>Riverine:</b> creek, high gradient; medium river, moderate gradient, pool, riffle; spring/spring brook.<br><b>Palustrine:</b> riparian.   | 4C<br>4D   |
| Green Sea Turtle                 | <i>Chelonia mydas</i>                     | E      | <b>Marine:</b> near shore; shallow water.<br><b>Estuarine:</b> bay/sound; tidal flat/shore.<br><b>Terrestrial:</b> sand/dune.  | None   |
| Leatherback Sea Turtle           | <i>Dermochelys coriacea</i>               | E      | <b>Marine:</b> near shore; shallow water.<br><b>Estuarine:</b> bay/sound.<br><b>Terrestrial:</b> sand/dune.  | None   |
| Loggerhead Sea Turtle            | <i>Caretta caretta</i>                    | T      | <b>Marine:</b> near shore; shallow water.<br><b>Estuarine:</b> bay/sound; lagoon; river mouth/tidal river; tidal flat/shore.<br><b>Terrestrial:</b> sand/dune.   | None   |
| Northern Pacific pond turtle     | <i>Actinemys marmorata marmorata</i>      | SOC    | <b>Riverine:</b> creek, medium river, moderate gradient, pool.<br><b>Lacustrine:</b> shallow water.<br><b>Palustrine:</b> herbaceous wetland; riparian.<br><b>Terrestrial:</b> sand/dune.  | 4A<br>4B<br>4C<br>4D   |

**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name                        | Scientific Name                | Status | Habitat  | Proposed Alternatives With Potential for Species' Occurrence |
|------------------------------------|--------------------------------|--------|--|--|
| Northern red-legged frog           | <i>Rana aurora aurora</i>      | SOC    | <b>Riverine:</b> creek, low gradient, pool;<br><b>Lacustrine:</b> shallow water.<br><b>Palustrine:</b> herbaceous wetland, riparian.<br><b>Terrestrial:</b> mixed forest; forest/woodland; grassland/herbaceous. | All  |
| Oregon spotted frog                | <i>Rana pretiosa</i>           | C      | <b>Riverine:</b> creek, medium river, pool; spring/spring brook.<br><b>Lacustrine:</b> shallow water.<br><b>Palustrine:</b> herbaceous wetland; riparian; temporary pool.  | 4A<br>4B<br>4C<br>4D   |
| Oregon slender salamander          | <i>Batrachoseps wrighti</i>    | SOC    | <b>Terrestrial:</b> conifer, mixed, and mixed forests; mixed woodland.   | None   |
| Pacific Ridley Sea Turtle          | <i>Lepidochelys olivacea</i>   | T      | <b>Marine:</b> near shore; shallow water.<br><b>Estuarine:</b> bay/sound; tidal flat/shore.<br><b>Terrestrial:</b> sand/dune.  | None   |
| Southern torrent (seep) salamander | <i>Rhyacotriton variegatus</i> | SOC    | <b>Riverine:</b> creek, high gradient; spring/spring brook.<br><b>Palustrine:</b> riparian.  | 4C<br>4D   |

**Plants**

|                            |   |     |  |          |
|----------------------------|---|-----|--|----------|
| Bradshaw's desert parsley  | <i>Lomatium bradshawii</i>                      | E   | <b>Terrestrial:</b> grassland/herbaceous.  | All      |
| Cliff paintbrush           | <i>Castilleja rupicola</i>                      | SOC | <b>Terrestrial:</b> cliffs; rock ledges; crevices.   | None     |
| Cold-water corydalis       | <i>Corydalis aquae-gelidae</i>                  | SOC | <b>Riverine:</b> creek, shallow water; spring.   | 4C<br>4D |
| Crenulate grape fern       | <i>Botrychium crenulatum</i>                    | SOC | <b>Riverine:</b> creek, low gradient; spring/spring brook.<br><b>Palustrine:</b> forested wetland; herbaceous wetland; riparian.<br><b>Terrestrial:</b> conifer forest; forest/woodland; grassland/herbaceous. | All      |
| Frye's limbella            | <i>Limbella fryei</i>                           | SOC | <b>Lacustrine:</b> riparian.   | None     |
| Henderson's checker-mallow | <i>Sidalcea hendersonii</i>                     | SOC | <b>Terrestrial:</b> coastal wet areas, mudflats and high marshes.  | None     |
| Hitchcock's blue-eye grass | <i>Sisyrinchium hitchcockii</i>                 | SOC | <b>Terrestrial:</b> grassland/herbaceous; savanna.   | All      |
| Kincaid's lupine           | <i>Lupinus sulphureus</i> ssp. <i>kincaidii</i> | T   | <b>Terrestrial:</b> prairie  | All      |
| Peacock larkspur           | <i>Delphinium pavonaceum</i>                    | SOC | <b>Palustrine:</b> wet meadows.<br><b>Terrestrial:</b> riparian; hardwood woodlands; roadsides; fence rows.  | All      |
| Pink sand-verbena          | <i>Abronia umbellata</i> ssp. <i>breviflora</i> | SOC | <b>Terrestrial:</b> sand/dune.   | None     |

**Table B-1.** Threatened, Endangered, and Candidate Species and Species of Concern

| Common Name                | Scientific Name                                 | Status | Habitat   | Proposed Alternatives With Potential for Species' Occurrence |
|----------------------------|---|--------|---|--|
| Shaggy horkelia            | <i>Horkelia congesta</i> ssp. <i>congesta</i>   | SOC    | <b>Terrestrial:</b> grassland; savannah.  | 4A<br>4B<br>4C<br>4D   |
| Thin-leaved peavine        | <i>Lathyrus holochlorus</i>                     | SOC    | <b>Terrestrial:</b> riparian; forest edge; forest/woodland; grassland/herbaceous; old field; savanna; shrubland/chaparral; hardwood woodland. | All  |
| Wayside aster              | <i>Eucephalus vialis</i>                        | SOC    | <b>Terrestrial:</b> woodland.   | None   |
| Whitebark Pine             | <i>Pinus albicaulis</i>                         | C      | <b>Terrestrial:</b> conifer forest; forest/woodland, conifer woodland.  | None   |
| Whitetop aster             | <i>Sericocarpus rigidus</i>                     | SOC    | <b>Terrestrial:</b> grassland/herbaceous; savanna.  | All  |
| Willamette daisy           | <i>Erigeron decumbens</i> var. <i>decumbens</i> | E      | <b>Terrestrial:</b> prairie.  | All  |
| Willamette Valley larkspur | <i>Delphinium oreganum</i>                      | SOC    | <b>Terrestrial:</b> prairie.  | All  |

Federally listed species:

E = Federally listed as endangered

T = Federally listed as threatened

C = Candidate species for federal listing

SOC = Species of concern. Taxa whose conservation status is of concern to the U.S. Fish and Wildlife Service (many previously known as Category 2 candidates), but for which further information is still needed. Such species receive no legal protection and use of the term does not necessarily imply that a species will eventually be proposed for listing.)